SEQUENCE LISTING

<pre><110> University of Utah Research Foundation Cognetix, Inc. Olivera, Baldomero M. McIntosh, J, Michael Watkins, Maren Garrett, James E. Cruz, Lourdes J. Grilley, Michaelle Schoenfeld, Robert M. Walker, Craig Shetty, Reshma Jones, Robert M.</pre>													
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is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p

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Lys Lys Ala Met Gln Arg Asp Ala Ile Asn Val Arg Arg Arg Ser
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Val Ile Cys Trp Gly
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Lys Gln Ala Thr Glu Arg Asp Ala Ile Asn Ile Arg Trp Arg Arg Ser
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 Glu Glu Lys His Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala
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 Val Ile Cys Trp Gly
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                                     20
                 15
                                                                       149
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 Glu Glu Gln Phe Cys Cys Gly Leu Glu Asn Gly Gln Pro Phe Cys Ala
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Asp	Ala	Ile 35	Asn	Val	Arg	Arg	Arg 40	Arg	Ser	Arg	Thr	Arg 45	Arg	Val	Val	
Thr	Gly 50	Ala	Суѕ	Glu	Glu	His 55	Cys	Glu	Asp	Glu	Glu 60	Lys	His	Cys	Cys	
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Т	hr Gl	n Vai	l Met 20	. Val	Gln	. Gly	Asp	Gly 25	Asp	Gln	Pro	Ala	Ala 30	Arg	Asn		
A	la Va	al Pro	o Lys	a Asp	Asp	Asn	Pro 40	Asp	Gly	Ala	ser Ser	Gly 45	Lys	Phe	. Met		
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                                                                        96
 Thr Gln Ala Met Val Gln Asp Gln Pro Ala Gly Arg Asp Ala Val Pro
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Arg Gln Tyr Gly Cys Pro Pro Gly Leu Trp Cys His
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35

45

193

144

192

45

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	ctg Leu	aag Lys	aga Arg 35	ggc Gly	ttc Phe	tac Tyr	ggt Gly	act Thr 40	ctg Leu	gca Ala	atg Met	tct Ser	acc Thr 45	aga Arg	gga Gly	tgc Cys	144
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	Asp 65	Cys	Ser	· Gly	y Tyr	Ser 70	Tyr	Суз	arg	g Cys	: Gly 75	/ Asp	Ala	a His	s His	Phe 80	
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                                                                      144
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ctg aag aga ggc ttc tac ggt act ctg gca atg tct tcc aga gga tgc Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Ser Arg Gly Cys 35 40 45	144
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Phe	Xaa 35	Arg	Gly	Cys	Thr	Cys 40	Thr	Cys							
> 3 > [344 ONA	s car	racte	erist	icus	3									
> (. (264	1)												
atg	tcg														48
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Pro	Ser	Ser 20	Gln	Gln	Glu	Gly	Asp 25	Val	Gln	Ala	Arg	Lys 30	Thr	His	
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Cys	Asp	Gly	His	Asp 70	His	Cys	Asp	Cys	Gly 75	Asp	Thr	Leu	Gly	Thr 80	
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(1)(264) 82 atg tcg aaa atg gga gct atg ttt gtc ctt ttg Met Ser Lys Met Gly Ala Met Phe Val Leu Leu 10 aag agc ggc ttc tac ggt act ctg gca atg tct Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ser Gly His Asp His Cys Asp Cys Gly Asp Nasp Cys Gly Cys Ser Gly Cys The Cys His Arg Arg Gln Asn Gly Glu Cys Ser Gly Cys Cys Asp Cys Gly Asp Cys Gly Cys Cys Asp Cys Gly Cys Cys Asp Cys Gly Cys Cys Gly Cys Cys Cys Cys Cys Cys Cys Cys Cys Cy	Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35 Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35 Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35 Pho Xaa Arg Gly Cys Thr Cys Thr Cys 36 Pho Xaa Arg Gly Cys Thr Cys Thr Cys 36 Pho Xaa Arg Gly Cys Thr Cys Thr Cys 36 Pho Xaa Arg Gly Cys Thr Cys Thr Cys 36 Pho Xaa Arg Gly Cys Thr Cys Thr Cys 36 CDS CDS CDS CDS CDS CDS CDS CD	Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35 Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35 82 > 344 > DNA > Conus caracteristicus > CDS > (1)(264) > 82 atg tcg aaa atg gga gct atg ttt gtc ctt ttg ctt ctt Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu Leu 5 cca tcc agc cag cag gaa gga ggt gtc cag gca aga aaa Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys 20 aag agc ggc ttc tac ggt act ctg gca atg tct gcc aga Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg 35 ggc act tgc cat cgt cgt caa aac ggc gag tgt cag ggt Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly 55 accaga tgc gtg tgt ata tgt taaggttgat taattgactc tt Ser Gly Cys Val Cys Ile Cys 85 accgatt aaaaaaattt agagcaatat gttcgagaaa aaccgaagac > 83 > 88 > 88 > 88 > PRT > Conus caracteristicus > 83 Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu 5 Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys 30 Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg 35 Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly 55 Cys Asp Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg 40 Aug 25 Conus caracteristicus > 83 Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu 5 Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys 30 Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg 40 Clys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu	Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35	Phe Xaa Arg Gly Cys Thr Cys Thr Cys 35 > 82 > 344 > DNA > Conus caracteristicus > CDS > (1)(264) > 82 atg tcg aaa atg gga gct atg ttt gtc ctt ttg ctt ctt ttc atc Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu Phe Ile 10 cca tcc agc cag cag gaa gga ggt gtc cag gca aga aaa acg cac Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His 20 aag agc ggc ttc tac ggt act ctg gca atg tct gcc aga gga tgc Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys 43 ggc act tgc cat cgt cgt caa aac ggc gag tgt cag ggt act tgc Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys 50 tgc gac gga cac gac cat tgt gac tgc ggt gac act ctc ggt act Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu Gly Thr 70 tca gga tgc gtt gt ata tgt taaggttgat taattgactc ttttaactcg Ser Gly Cys Val Cys Ile Cys accgatt aaaaaaattt agagcaatat gttcgagaaa aaccgaagac > 83 > 88 > PRT > Conus caracteristicus > 83 Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Ile 10 Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His 20 Clys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys 35 Cys Asp Gly His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys 60 Clys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys 35 Cys Asp Gly His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys 60 Cys Asp Gly His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys 60 Cys Asp Gly His Arg Arg Arg Cln Asn Gly Glu Cys Gln Gly Thr Cys 60 Cys Asp Gly His Arg His Cys Asp Cys Gly Asp Thr Leu Gly Thr

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Tyr Ser Gly Cys Val Cys Ile Cys
<210>
      84
<211>
       42
<212>
      PRT
      Conus caracteristicus
<220>
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<222>
      (1)..(42)
      Xaa at residue 13 is Glu or gamma-carboxy-Glu; Xaa at residue 35
       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p
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                                    10
Thr Cys Asp Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu
Gly Thr Xaa Ser Gly Cys Val Cys Ile Cys
<210>
       85
       422
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       DNA
<213> Conus caracteristicus
<220>
<221> CDS
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      (7)..(258)
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                                                                       48
       Met His Leu Ser Leu Ala Arg Ser Ala Val Leu Met Leu Leu
ctg ctg ttt gcc ttg gac aac ttc gtt ggg gtc cag cca gga cag ata
                                                                       96
Leu Leu Phe Ala Leu Asp Asn Phe Val Gly Val Gln Pro Gly Gln Ile
                    20
aca aga gat gtg gac aac cgc cgt aac cgg caa tcg cga tgg aag cca
                                                                      144
Thr Arg Asp Val Asp Asn Arg Arg Asn Arg Gln Ser Arg Trp Lys Pro
                                     40
agg agt ctc ttc aag tca ctt cat aaa cga gca tcg tgt gga ggg act
                                                                      192
Arg Ser Leu Phe Lys Ser Leu His Lys Arg Ala Ser Cys Gly Gly Thr
            50
                                 55
tgc acg gaa agt gcc gat tgc cct tcc acg tgt agt act tgc tta cat
                                                                      240
Cys Thr Glu Ser Ala Asp Cys Pro Ser Thr Cys Ser Thr Cys Leu His
gct caa tgc gag tca aca tgatgtcgca ctacagctct tctctacagt
                                                                      288
Ala Gln Cys Glu Ser Thr
    80
gtgtacatcg accgtacgac gcatctttta tttctttggc tgtttcattc gttttcttgt
gttcataaca tgcggagccc ttccgttacc tctactgctc tacacttaac ctgataacca
                                                                      408
gaaaatccag tact
                                                                      422
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<211> 84
<212> ' PRT
<213> Conus caracteristicus
<400> 86
Met His Leu Ser Leu Ala Arg Ser Ala Val Leu Met Leu Leu Leu Leu
Phe Ala Leu Asp Asn Phe Val Gly Val Gln Pro Gly Gln Ile Thr Arg
            20
Asp Val Asp Asn Arg Arg Asn Arg Gln Ser Arg Trp Lys Pro Arg Ser
Leu Phe Lys Ser Leu His Lys Arg Ala Ser Cys Gly Gly Thr Cys Thr
Glu Ser Ala Asp Cys Pro Ser Thr Cys Ser Thr Cys Leu His Ala Gln
                    70
Cys Glu Ser Thr
<210> 87
<211>
       28
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<213>
      Conus caracteristicus
<220>
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<222>
       (1)..(28)
<223>
       Xaa at residues 9 and 26 is Glu or gamma-carboxy-Glu; Xaa at resi
       due 14 is Pro or hydroxy-Pro
<400> 87
Ala Ser Cys Gly Gly Thr Cys Thr Xaa Ser Ala Asp Cys Xaa Ser Thr
Cys Ser Thr Cys Leu His Ala Gln Cys Xaa Ser Thr
<210>
      88
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      426
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      (7)..(258)
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gttaca atg cat ctg tca ctg gca cgc tca gct gtt ttg atg ttg ctt
                                                                       48
       Met His Leu Ser Leu Ala Arg Ser Ala Val Leu Met Leu Leu
ctg ctg ttt gcc ttg gac aac ttc gtt ggg gtc caa cca gga cag ata
                                                                       96
Leu Leu Phe Ala Leu Asp Asn Phe Val Gly Val Gln Pro Gly Gln Ile
act aga gat gtg gac aac cgc cgt aac ctg caa tcg cga tgg aag cca
                                                                      144
Thr Arg Asp Val Asp Asn Arg Arg Asn Leu Gln Ser Arg Trp Lys Pro
```

agg agt ctc ttc aag tca ctt cat aaa cga gca tcg tgt gga ggg act

,												
Arg Ser Leu Phe Lys Ser Leu His Lys Arg Ala Ser Cys Gly Gly Thr 50 55 60												
tgc acg gaa agt gcc gat tgc cct tcc acg tgt agt act tgc tta cat Cys Thr Glu Ser Ala Asp Cys Pro Ser Thr Cys Ser Thr Cys Leu His 65 70 75	240											
gct caa tgc gag tga aca tgatgtcgca ctacagctct tctctacagt `Ala Gln Cys Glu Thr 80	288											
gtgtacatcg accgaccgta cgacgcatct tttatttctt tgtctgtttc attcgttttc												
ttgagttcat aacatgcgga gcccttccgt tacctctact gctctacact taagctgata												
accagaaaat ccagtact												
<210> 89 <211> 82 <212> PRT <213> Conus caracteristicus												
<400> 89 Met His Leu Ser Leu Ala Arg Ser Ala Val Leu Met Leu Leu Leu Leu 1 5 10 15												
Phe Ala Leu Asp Asn Phe Val Gly Val Gln Pro Gly Gln Ile Thr Arg 20 25 30												
Asp Val Asp Asn Arg Arg Asn Leu Gln Ser Arg Trp Lys Pro Arg Ser 35 40 45												
Leu Phe Lys Ser Leu His Lys Arg Ala Ser Cys Gly Gly Thr Cys Thr 50 55 60												
Glu Ser Ala Asp Cys Pro Ser Thr Cys Ser Thr Cys Leu His Ala Gln 65 70 75 80												
Cys Glu												
<210> 90 <211> 25 <212> PRT <213> Conus caracteristicus												
<220> <221> PEPTIDE <222> (1)(25) <223> Xaa at residues 8 and 25 is Glu or gamma-carboxy-Glu; Xaa at due 13 is Pro or hydroxy-Pro	resi											
<400> 90 Ser Cys Gly Gly Thr Cys Thr Xaa Ser Ala Asp Cys Xaa Ser Thr Cys 1 5 10 15												
Ser Thr Cys Leu His Ala Gln Cys Xaa 20 25												
<210> 91 <211> 220 <212> DNA <213> Conus circumcisus												
<220>												

<210> 94

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                            Phe Asp Gly Arg Asn Ala Ala Val Asn
gag aga gcg cct tgg acg gtc gtt ttg tcc acc acg aat tgc tgc ggt
                                                                  102
Glu Arg Ala Pro Trp Thr Val Val Leu Ser Thr Thr Asn Cys Cys Gly
                   15
tat aat acg atg gaa tto tgo cot got tgo atg tgo act tat too tgt
                                                                  150
Tyr Asn Thr Met Glu Phe Cys Pro Ala Cys Met Cys Thr Tyr Ser Cys
199
Pro Lys Lys Lys Pro Gly Lys Gly Arg Arg Asn Asn
ggaccctctg aaccacgacg t
                                                                  220
<210>
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<211>
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      PRT
<213>
      Conus circumcisus
<400> 92
Phe Asp Gly Arg Asn Ala Ala Val Asn Glu Arg Ala Pro Trp Thr Val
                                  10
                                                      15
Val Leu Ser Thr Thr Asn Cys Cys Gly Tyr Asn Thr Met Glu Phe Cys
                               25
Pro Ala Cys Met Cys Thr Tyr Ser Cys Pro Lys Lys Lys Pro Gly
Lys Gly Arg Arg Asn Asn
   50
<210>
      93
      43
<211>
<212>
      PRT
<213> Conus circumcisus
<220>
      PEPTIDE
<221>
<222>
      Xaa at residue 19 is Glu or gamma-carboxy-Glu; Xaa at residues 2,
       22, 31 and 36 is Pro or hydroxy-Pro; Xaa at residue 3 is Trp (D
       or L) or bromo-Trp (D or L); Xaa at residues 15 adn 28 is Tyr, 12
       5I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
Ala Xaa Xaa Thr Val Val Leu Ser Thr Thr Asn Cys Cys Gly Xaa Asn
Thr Met Xaa Phe Cys Xaa Ala Cys Met Cys Thr Xaa Ser Cys Xaa Lys
                               25
Lys Lys Lys Xaa Gly Lys Gly Arg Arg Asn Asn
        35
                           40
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       64
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       PRT
<213>
      Conus consors
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Gly Ile Phe Val Gly Val Gln Pro Glu Gln Ile Thr Arg Asp Val Asp
Lys Gly Tyr Ser Thr Asp Asp Gly His Asp Leu Leu Ser Leu Lys
Gln Ile Ser Leu Arg Ala Cys Thr Gly Ser Cys Asn Ser Asp Ser Glu
Cys Tyr Asn Phe Cys Asp Cys Ile Gly Thr Arg Cys Glu Ala Gln Lys
<210>
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       27
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       PRT
<213>
      Conus consors
<220>
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       PEPTIDE
<222>
       (1)..(27)
       Xaa at residues 11 and 24 is Glu or gamma-carboxy-Glu; Xaa at res
       idue 13 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Ty
       r or O-phospho-Tyr
<400> 95
Ala Cys Thr Gly Ser Cys Asn Ser Asp Ser Xaa Cys Xaa Asn Phe Cys
Asp Cys Ile Gly Thr Arg Cys Xaa Ala Gln Lys
<210>
       96
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       27
<212>
      PRT
<213> Conus delesstii
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       PEPTIDE
<222>
       (1)..(27)
       Xaa at residues 13 and 16 is Glu or gamma-carboxy-Glu; Xaa at res
<223>
       idue 4 is Pro or hydroxy-Pro; Xaa at residue 25 is Tyr, 125I-Tyr,
        mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400>
      96
Ala Cys Lys Xaa Lys Asn Asn Leu Cys Ala Ile Thr Xaa Met Ala Xaa
Cys Cys Ser Gly Phe Cys Leu Ile Xaa Arg Cys
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       97
<211>
       375
<212>
       DNA
<213>
       Conus distans
<220>
<221>
       CDS
<222>
       (24)..(260)
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ctt cta ctt ctt gtg ccc atg gca acc agt caa cag gat gga gga gag Leu Leu Leu Val Pro Met Ala Thr Ser Gln Gln Asp Gly Glu 15 20 25	101
aag cag gcg atg caa agg gac gca atc aac gtc gca cca gga aca tca Lys Gln Ala Met Gln Arg Asp Ala Ile Asn Val Ala Pro Gly Thr Ser 30 35 40	149
atc act cgg aga aat gta gat cag gag tgc att gac gcc tgt cag ctg Ile Thr Arg Arg Asn Val Asp Gln Glu Cys Ile Asp Ala Cys Gln Leu 45 50 55	197
gag gac aag aat tgc tgt ggc aga aca gat gga gaa ccc aga tgt gcg Glu Asp Lys Asn Cys Cys Gly Arg Thr Asp Gly Glu Pro Arg Cys Ala 60 65 70	245
aaa atc tgc ctc gga taatttctgt acgctgtctc attcattatt tcatccgtac Lys Ile Cys Leu Gly 75	300
gagtgtaaac gagacctatt agaaagtcga aggttgtgcg taatttgata agcattgttt	360
gctgggacga acgga	375
<210> 98 <211> 79 <212> PRT <213> Conus distans	
<pre><400> 98 Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 1</pre>	
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Val Pro	
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 1 5 10 15 Met Ala Thr Ser Gln Gln Asp Gly Gly Glu Lys Gln Ala Met Gln Arg	
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 10	
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 10 Met Ala Thr Ser Gln Gln Asp Gly Gly Glu Lys Gln Ala Met Gln Arg 25 Asp Ala Ile Asn Val Ala Pro Gly Thr Ser Ile Thr Arg Arg Asn Val Asp Gln Glu Cys Ile Asp Ala Cys Gln Leu Glu Asp Lys Asn Cys Cys	
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 15 Met Ala Thr Ser Gln Gln Asp Gly Gly Glu Lys Gln Ala Met Gln Arg 25 Asp Ala Ile Asn Val Ala Pro Gly Thr Ser Ile Thr Arg Arg Asn Val Asp Gln Glu Cys Ile Asp Ala Cys Gln Leu Glu Asp Lys Asn Cys Cys Gly Arg Thr Asp Gly Glu Pro Arg Cys Ala Lys Ile Cys Leu Gly	
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 15 Met Ala Thr Ser Gln Gln Asp Gly Gly Glu Lys Gln Ala Met Gln Arg 25 Asp Ala Ile Asn Val Ala Pro Gly Thr Ser Ile Thr Arg Arg Asn Val Asp Gln Glu Cys Ile Asp Ala Cys Gln Leu Glu Asp Lys Asn Cys Cys 50 Gly Arg Thr Asp Gly Glu Pro Arg Cys Ala Lys Ile Cys Leu Gly 65	aa at
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Leu Val Pro 1	aa at

Second Second

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ilesi.

<211>

<212>

32

PRT <213> Conus distans

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<221>
       PEPTIDE
<222>
       (1)..(32)
       Xaa at residues 1, 5, 13 and 24 is Glu or gamma-carboxy-Glu; Xaa
<223>
       at residue 25 is Pro or hydroxy-Pro
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Xaa Thr Asp Gln Xaa Cys Ile Asp Ile Cys Lys Gln Xaa Asp Lys Lys
Cys Cys Gly Arg Ser Asn Gly Xaa Xaa Thr Cys Ala Lys Ile Cys Leu
            20
                                25
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      103
<211>
      376
<212> DNA
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<220>
<221>
       CDS
<222>
       (24)..(260)
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                                                                       53
                          Met Ser Gly Leu Gly Ile Met Val Leu Thr
ctt cta ctt ctt gtg ccc atg gca acc agt caa cag gat gga gga gag
                                                                     101
Leu Leu Leu Val Pro Met Ala Thr Ser Gln Gln Asp Gly Glu
                15
                                    20
aag cag gcg atg caa agg gac gca atc aac gtc gca cca gga aca tca
                                                                     149
Lys Gln Ala Met Gln Arg Asp Ala Ile Asn Val Ala Pro Gly Thr Ser
            30
                                35
                                                    40
atc act cgg aga gaa aca gat cag gag tgc att gac acc tgt gag cag
                                                                     197
Ile Thr Arg Arg Glu Thr Asp Gln Glu Cys Ile Asp Thr Cys Glu Gln
        45
                            50
                                                55
gag gac aag aaa tgc tgc ggc aga aca aat gga gaa ccc gta tgt gcg
                                                                      245
Glu Asp Lys Lys Cys Cys Gly Arg Thr Asn Gly Glu Pro Val Cys Ala
aaa atc tgc ttc gga taatttctgt acgctgtctc attcataatt tcatcagtac
                                                                      300
Lys Ile Cys Phe Gly
gagtttaaac gagacctatt agaaagtcga aggttcgtgc ttaatttgat aagcattgtt
                                                                      360
tgctgggatg aacgga
                                                                      376
<210>
       104
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       79
<212>
      PRT
<213> Conus distans
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Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Val Pro
                                    10
Met Ala Thr Ser Gln Gln Asp Gly Glu Lys Gln Ala Met Gln Arg
Asp Ala Ile Asn Val Ala Pro Gly Thr Ser Ile Thr Arg Arg Glu Thr
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Asp Gln Glu Cys Ile Asp Thr Cys Glu Gln Glu Asp Lys Lys Cys
    50
                        55
Gly Arg Thr Asn Gly Glu Pro Val Cys Ala Lys Ile Cys Phe Gly
<210> 105
      32
<211>
<212>
      PRT
<213>
      Conus distans
<220>
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      PEPTIDE
<222>
      (1)..(32)
      Xaa at residues 1, 5, 11, 13 and 24 is Glu or gamma-carboxy-Glu;
       Xaa at residue 25 is Pro or hydroxy-Pro
<400> 105
Xaa Thr Asp Gln Xaa Cys Ile Asp Thr Cys Xaa Gln Xaa Asp Lys Lys
Cys Cys Gly Arg Thr Asn Gly Xaa Xaa Val Cys Ala Lys Ile Cys Phe
<210>
       106
<211>
       250
<212>
       DNA
<213> Conus ermineus
<220>
<221> CDS
<222>
      (1)..(219)
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atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtc gtt tcc
                                                                       48
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
ttc act tca gat cgt gca tcg gat gac agg aat acc aac gac aaa gca
                                                                       96
Phe Thr Ser Asp Arg Ala Ser Asp Asp Arg Asn Thr Asn Asp Lys Ala
tet ege etg etc tet eac gtt gte agg gga tge tgt ggt aag tat eec
                                                                      144
Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Lys Tyr Pro
aat gct gcc tgt cat cct tgc ggt tgt aca gtg ggt agg cca ccg tat
                                                                      192
Asn Ala Ala Cys His Pro Cys Gly Cys Thr Val Gly Arg Pro Pro Tyr
                                             60
tgt gac aga ccc agt ggt gga gga cgc tgatgctcca ggaccctctg
                                                                      239
Cys Asp Arg Pro Ser Gly Gly Gly Arg
aaccacgacg t
                                                                      250
<210> 107
<211> 73
<212> PRT
<213> Conus ermineus
<400> 107
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                    10
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Phe Thr Ser Asp Arg Ala Ser Asp Asp Arg Asn Thr Asn Asp Lys Ala
                                25
            2.0
Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Lys Tyr Pro
Asn Ala Ala Cys His Pro Cys Gly Cys Thr Val Gly Arg Pro Pro Tyr
Cys Asp Arg Pro Ser Gly Gly Gly Arg
<210>
       108
<211>
      30
<212>
      PRT
<213> Conus ermineus
<220>
<221>
       PEPTIDE
<222>
       (1)..(30)
      Xaa at residue7, 13, 21, 22 and 27 is Pro or hydroxy-Pro; Xaa at
       residues 6 and 23 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O
       -sulpho-Tyr or O-phospho-Tyr
<400> 108
Gly Cys Cys Gly Lys Xaa Xaa Asn Ala Ala Cys His Xaa Cys Gly Cys
                                     10
Thr Val Gly Arg Xaa Xaa Xaa Cys Asp Arg Xaa Ser Gly Gly
            20
                                25
<210>
       109
<211>
       241
<212>
       DNA
<213>
      Conus generalis
<220>
<221>
      CDS
<222>
      (1)..(210)
<400> 109
gga tcc atg atg tct aaa ctg gga gtc ttg ttg acc atc tgt ctg gtt
                                                                       48
Gly Ser Met Met Ser Lys Leu Gly Val Leu Leu Thr Ile Cys Leu Val
                                                         15
ctg ttt ccc ctt act gct ctt cca ctg gat gga gaa caa cct gta gac
                                                                       96
Leu Phe Pro Leu Thr Ala Leu Pro Leu Asp Gly Glu Gln Pro Val Asp
            20
cga cat gcc gag cat atg cag gat gac aat tca gct gca cag aac ccc
                                                                      144
Arg His Ala Glu His Met Gln Asp Asp Asn Ser Ala Ala Gln Asn Pro
tgg gtt att gcc atc aga cag tgt tgc acg ttc tgc aac ttt gga tgc
                                                                      192
Trp Val Ile Ala Ile Arg Gln Cys Cys Thr Phe Cys Asn Phe Gly Cys
cag cct tgt tgc gtc ccc tgataacgtg ttgatgacca actttctcga g
                                                                      241
Gln Pro Cys Cys Val Pro
65
                    70
<210>
       110
       70
<211>
<212>
      PRT
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<213> Conus generalis
<400> 110
Gly Ser Met Met Ser Lys Leu Gly Val Leu Leu Thr Ile Cys Leu Val
Leu Phe Pro Leu Thr Ala Leu Pro Leu Asp Gly Glu Gln Pro Val Asp
            20
                                25
Arg His Ala Glu His Met Gln Asp Asp Asn Ser Ala Ala Gln Asn Pro
Trp Val Ile Ala Ile Arg Gln Cys Cys Thr Phe Cys Asn Phe Gly Cys
Gln Pro Cys Cys Val Pro
<210> 111
<211> 16
<212> PRT
<213> Conus generalis
<220>
<221> PEPTIDE
<222>
      (1)..(16)
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 12 and 16 is
       Pro or hydroxy-Pro
<400> 111
Xaa Cys Cys Thr Phe Cys Asn Phe Gly Cys Gln Xaa Cys Cys Val Xaa
<210> 112
<211>
      404
<212>
      DNA
<213> Conus geographus
<220>
<221> CDS
<222> (18)..(242)
<400> 112
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                                                                       50
                   Met Asn Leu Thr Cys Val Leu Ile Ile Ala Val
ctg ttt ctg acg gcc tgc cag ctc att gca gct gat gac tcc aqa qat
                                                                       98
Leu Phe Leu Thr Ala Cys Gln Leu Ile Ala Ala Asp Asp Ser Arg Asp
aac cag aag cac cgt gca gtg agg atg aga gac gca ttg aag aat ttc
                                                                      146
Asn Gln Lys His Arg Ala Val Arg Met Arg Asp Ala Leu Lys Asn Phe
                            35
aaa gat tee agg geg tge tee ggt aga ggt tet aga tgt eet eee caa
                                                                      194
Lys Asp Ser Arg Ala Cys Ser Gly Arg Gly Ser Arg Cys Pro Pro Gln
                        50
```

tgc tgc atg ggt ttg acg tgc ggt cgt gag tat cca ccc aga tgc ggt

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Cys Cys Met Gly Leu Thr Cys Gly Arg Glu Tyr Pro Pro Arg Cys Gly
tgatatacgg tgaacaactg atatttcccc tctgtgctct accctctttt gcctgattca
                                                                   302
cccacaccta tgtgtggtca tgaaccactc agtacctaca cctctggtgg cttcagagga
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<213> Conus geographus
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Cys Gln Leu Ile Ala Ala Asp Asp Ser Arg Asp Asn Gln Lys His Arg
Ala Val Arg Met Arg Asp Ala Leu Lys Asn Phe Lys Asp Ser Arg Ala
Cys Ser Gly Arg Gly Ser Arg Cys Pro Pro Gln Cys Cys Met Gly Leu
Thr Cys Gly Arg Glu Tyr Pro Pro Arg Cys Gly
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      27
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      (1)..(27)
      Xaa at residue 22 is Glu or gamma-carboxy-Glu; Xaa at residues 10
       , 11, 24 and 25 is Pro or hydroxy-Pro; Xaa at residue 23 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-T
      yr
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Ala Cys Ser Gly Arg Gly Ser Arg Cys Xaa Xaa Gln Cys Cys Met Gly
Leu Thr Cys Gly Arg Xaa Xaa Xaa Arg Cys
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       (1)..(9)
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      Xaa at residue 7 is Pro or hydroxy-Pro
<400> 115
Cys Phe Ile Arg Asn Cys Xaa Lys Gly
<210> 116
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                                                                       48
Cys Cys Pro Ser Ser Lys Glu Asp Ser Leu Asn Cys Ile Glu Thr Met
gcg acc acg gcc acg tgc atg aag tcc aac aag ggg gag atc tac tcc
                                                                       96
Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Glu Ile Tyr Ser
            20
tat gcg tgc ggc tac tgc ggc aag aag aag gag agc tgt ttc ggc gac
                                                                      144
Tyr Ala Cys Gly Tyr Cys Gly Lys Lys Glu Ser Cys Phe Gly Asp
aaa aag cca gtg act gac tac cag tgc cag acg cgg aac att ccc aac
                                                                      192
Lys Lys Pro Val Thr Asp Tyr Gln Cys Gln Thr Arg Asn Ile Pro Asn
ccc tgc ggc ggc gct gct ctc tgaaggcacc aacagcacca acagcacqat
                                                                      243
Pro Cys Gly Gly Ala Ala Leu
ctcctgtgtt tcgtcactgc atttatgacg tcaaaaccac gtcatgcatg atgacgacga
                                                                      303
tctcggctat ggcatgtatt gaagaatgga aataaaccta gttttcagct gaaaaaa
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      Conus geographus
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Cys Cys Pro Ser Ser Lys Glu Asp Ser Leu Asn Cys Ile Glu Thr Met
Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Glu Ile Tyr Ser
Tyr Ala Cys Gly Tyr Cys Gly Lys Lys Glu Ser Cys Phe Gly Asp
Lys Lys Pro Val Thr Asp Tyr Gln Cys Gln Thr Arg Asn Ile Pro Asn
Pro Cys Gly Gly Ala Ala Leu
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       (1)..(71)
       Xaa at residues 7, 14, 29 and 43 is Glu or gamma-carboxy-Glu; Xaa
        at residues 3, 51, 63 and 65 is Pro or hydroxy-Pro; Xaa at resid
       ues 31, 33, 37 and 55 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Ty
       r, O-sulpho-Tyr or O-phospho-Tyr
```

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Cys Cys Xaa Ser Ser Lys Xaa Asp Ser Leu Asn Cys Ile Xaa Thr Met
                                     10
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Xaa Ala Cys Gly Xaa Cys Gly Lys Lys Xaa Ser Cys Phe Gly Asp
Lys Lys Xaa Val Thr Asp Xaa Gln Cys Gln Thr Arg Asn Ile Xaa Asn
Xaa Cys Gly Gly Ala Ala Leu
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       769
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       n is unknown
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                                                                       114
tcagaacaat gacgcacata gtctganaaa ataacc atg ggt atg cgg atg ang
                                         Met Gly Met Arg Met Xaa
ttt agt gtg ttt eng eag gtt gte ntg ggn ace act gte gtt tee tte
                                                                       162
Phe Ser Val Phe Xaa Gln Val Val Xaa Gly Thr Thr Val Val Ser Phe
            10
ach toa cgt cgt ggt cca aaa tot cgt cgc ggg gaa cot att ccg acc
                                                                       210
Xaa Ser Arg Arg Gly Pro Lys Ser Arg Arg Gly Glu Pro Ile Pro Thr
        25
                                                 35
act gta atc aac tac ggg gag tgc tgt aag gat cca tcc tgt tgg gtt
                                                                       258
Thr Val Ile Asn Tyr Gly Glu Cys Cys Lys Asp Pro Ser Cys Trp Val
    40
aag gtg aag gat ttc cag tgt cct gga gca agt cct ccc aac
                                                                       300
Lys Val Lys Asp Phe Gln Cys Pro Gly Ala Ser Pro Pro Asn
55
                     60
tgaaccacga catgtcgccc tctgcctgac ctgcttcacg ttccgtctct ttctgccact
                                                                       360
agaactcaac aactcgatcc aacagactcc tactttacct ccgtattctg aaactacttg
                                                                       420
gatttgattg tetttaatat etaeteacae ttgetgttat tacateatee aaaatttaae
                                                                       480
aagaacatga aaggtgtctg ttcaaacaaa atcaggcaat gacaangggg gaaagtctcc
                                                                       540
antitating aaaactgtca cotgtoacto tottaaccag gtttanaact gantaccact
                                                                       600
anagctgttg tnccacatca ngatcagncc aatttgtann gtttcctttg caaaactttt
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qcctqaaatt cttqaaaaqa aacgctcaca atgttgggaa gtgcttttna ttanctqaca
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                                                                      769
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Thr Thr Val Val Ser Phe Xaa Ser Arg Arg Gly Pro Lys Ser Arg Arg
Gly Glu Pro Ile Pro Thr Thr Val Ile Asn Tyr Gly Glu Cys Cys Lys
Asp Pro Ser Cys Trp Val Lys Val Lys Asp Phe Gln Cys Pro Gly Ala
Ser Pro Pro Asn
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       121
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       36
       PRT
<212>
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      Conus geographus
<220>
<221>
       PEPTIDE
<222>
       (1)..(36)
       Xaa at residues 2 and 13 is Glu or gamma-carboxy-Glu; Xaa at resi
       dues 3, 5, 18, 30, 35 adn 35 is Pro or hydroxy-Pro; Xaa at residu
       e 21 is Trp (D or L) or bromo-Trp (D or L);
<220>
<221>
       PEPTIDE
<222>
       (1)..(36)
<223>
       Xaa at residue 11 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O
       -sulpho-Tyr or O-phospho-Tyr
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Gly Xaa Xaa Ile Xaa Thr Thr Val Ile Asn Xaa Gly Xaa Cys Cys Lys
Asp Xaa Ser Cys Xaa Val Lys Val Lys Asp Phe Gln Cys Xaa Gly Ala
Ser Xaa Xaa Asn
        35
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       519
<212>
       DNA
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       Conus geographus
<220>
<221>
       CDS
       (113)..(391)
<222>
<400> 122
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Caccecc	ctgac	tttag tt	tgggtc	ct gg	agaaaac	c ttga	acgggca		et Lys	118
att tac ct Ile Tyr Le 5	g tgt o	ctt gct Leu Ala	ttt gt Phe Va 10	t ctg l Leu	ctc ctc Leu Lei	g gct 1 Ala	tct ac Ser Th	cc ata nr Ile	gtt Val	166
gat tca go Asp Ser Gl 20	g ctt (y Leu 1	ctt gat Leu Asp	aaa at Lys Il 25	t gag e Glu	act ata	aga Arg 30	aac to Asn Tr	gg aaa p Lys	cgc Arg	214
gat gac ac Asp Asp Se 35	c tat tr	tgt gat Cys Asp 40	gga tg Gly Cy	c cta s Leu	tgc acc Cys Thi 45	ata Ile	tta aa Leu Ly	aa aaa 7s Lys	gag Glu 50	262
act tgc ac Thr Cys Th	r Ser !	act atg Ihr Met 55	agc tg Ser Cy	c agg s Arg	gga aca Gly Thi 60	tgc Cys	cga aa Arg Ly	a gag s Glu 65	tgg Trp	310
cca tgt tg Pro Cys Tr	g gaa q p Glu (70	gaa gac Glu Asp	tgc ta Cys Ty	c tgt r Cys 75	act gaa Thr Glu	atc Ile	caa gg Gln Gl 80	y Gly	gct Ala	358
tgc gtc ac Cys Val Th 85	r Pro S	tca gaa Ser Glu	tgc aa Cys Ly 90	a cct s Pro	gga gaq Gly Glu	tgtt	gaggat	tgga	gtggcc	411
agttccagca	cataca	agcac ca	tggtgc	cc tg	gacaatco	tcta	ttgaat	tgaa	tatgcc	471
tgtggcagga	atctgt	tccta ca	aaataa	aa aa	atcataaq	ttaa	aaaa			519
<210> 123 <211> 93 <212> PRT <213> Cor		graphus								
<211> 93 <212> PRT <213> Cor <400> 123	us geog	-								
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<211> 93 <212> PRT <213> Cor <400> 123 Met Lys II 1	us geoge e Tyr I p Ser (20 p Asp S	Leu Cys 5 Gly Leu	Leu As	p Lys 25	10 Ile Glu	Thr	Ile Ar 30	15 g Asn	Trp	
<211> 93 <212> PRT <213> Cor <400> 123 Met Lys II 1 Ile Val As	us geoge e Tyr I p Ser (20 p Asp S	Leu Cys 5 Gly Leu Ser Tyr	Leu Ass	Lys 25 Gly	10 Ile Glu Cys Leu	Thr Cys	Ile Ar 30 Thr Il 45	15 g Asn e Leu	Trp Lys	
<pre><211> 93 <212> PRT <213> Cor <400> 123 Met Lys I1 1 Ile Val As Lys Arg As 35</pre> Lys Glu Th	us geoge e Tyr I p Ser (20 p Asp S	Leu Cys Gly Leu Ser Tyr	Leu Ass Cys Ass 40 Thr Me 55	Lys 25 Gly	10 Ile Glu Cys Leu Cys Arc	Thr Cys Gly 60	Ile Ar 30 Thr Il 45 Thr Cy	15 g Asn e Leu s Arg	Trp Lys Lys	
<pre><211> 93 <212> PRT <213> Cor <400> 123 Met Lys II 1</pre>	us geoge e Tyr I p Ser (20 p Asp S r Cys T	Leu Cys Gly Leu Ser Tyr Thr Ser Trp Glu 70 Thr Pro	Leu As; Cys As; 40 Thr Me; 55 Glu As;	Lys 25 Gly Ser Cys	10 Ile Glu Cys Leu Cys Arc	Thr Cys Gly 60 Thr	Ile Ar 30 Thr Il 45 Thr Cy Glu Il	15 g Asn e Leu s Arg	Trp Lys Lys Gly	
<pre><211> 93 <212> PRT <213> Cor <400> 123 Met Lys I1 1</pre>	e Tyr I p Ser (20 p Asp S r Cys T	Leu Cys Gly Leu Ser Tyr Thr Ser Trp Glu 70	Leu As; Cys As; 40 Thr Me; 55 Glu As;	Lys 25 Gly Ser Cys	10 Ile Glu Cys Leu Cys Arc	Thr Cys Gly 60 Thr	Ile Ar 30 Thr Il 45 Thr Cy Glu Il	15 g Asn e Leu s Arg	Trp Lys Lys Gly	

-Glu; Xaa at residues 33, 52 and 57 is Pro or hydroxy-Pro; Xaa at residues 32 and 35 is Trp (D or L) or bromo-Trp (D or L); <220> <221> PEPTIDE <222> (1)..(60)Xaa at residues 4 and 40 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo -Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 124 Asp Asp Ser Xaa Cys Asp Gly Cys Leu Cys Thr Ile Leu Lys Lys Xaa 10 Thr Cys Thr Ser Thr Met Ser Cys Arg Gly Thr Cys Arg Lys Xaa Xaa 20 Xaa Cys Xaa Xaa Xaa Asp Cys Xaa Cys Thr Xaa Ile Gln Gly Gly Ala 40 Cys Val Thr Xaa Ser Xaa Cys Lys Xaa Gly Xaa Cys <210> 125 <211> 409 <212> DNA <213> Conus geographus <220> <221> CDS <222> (17)..(313)<400> 125 aacgttgacg ggcagt atg aac att tac ctg tgt ctt gct ttt ctt ctg ttc 52 Met Asn Ile Tyr Leu Cys Leu Ala Phe Leu Leu Phe ctg cct tct acc ata gtt gat tca ggg ctt ctt gat aaa att gag aca 100 Leu Pro Ser Thr Ile Val Asp Ser Gly Leu Leu Asp Lys Ile Glu Thr 20 ata agg aat tgg aga cgt gat gaa agc aag tgt gat cga tgc aat tgc 148 Ile Arg Asn Trp Arg Arg Asp Glu Ser Lys Cys Asp Arg Cys Asn Cys 30 gcc gaa tta aga tca tcc aga tgc aca caa gct atc ttc tgc ctt aca 196 Ala Glu Leu Arg Ser Ser Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr 45 55 eeg gag tta tge aca eeg age ate tea tgt eeg aca ggt gaa tge ege 244 Pro Glu Leu Cys Thr Pro Ser Ile Ser Cys Pro Thr Gly Glu Cys Arg tgt act aag ttc cat cag tca aga tgc act aga ttc gta gaa tgc gta 292 Cys Thr Lys Phe His Gln Ser Arg Cys Thr Arg Phe Val Glu Cys Val cct aat aag tgt aga gac gca tagaggccag ttccagcaca tacagcacca 343 Pro Asn Lys Cys Arg Asp Ala tgatgccctg gacaatcgtg ttgttggatt gaatatgccc gtggcaggaa tctgtcctac 403

409

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aaaaaa

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<213>
     Conus geographus
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Ile Val Asp Ser Gly Leu Leu Asp Lys Ile Glu Thr Ile Arg Asn Trp
Arg Arg Asp Glu Ser Lys Cys Asp Arg Cys Asn Cys Ala Glu Leu Arg
                            40
Ser Ser Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr Pro Glu Leu Cys
Thr Pro Ser Ile Ser Cys Pro Thr Gly Glu Cys Arg Cys Thr Lys Phe
His Gln Ser Arg Cys Thr Arg Phe Val Glu Cys Val Pro Asn Lys Cys
                                    90
Arg Asp Ala
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      127
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       65
<212>
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<220>
<221> PEPTIDE
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       (1)..(65)
      Xaa at residues 2, 12, 28, 40 and 56 is Glu or gamma-carboxy-Glu;
       Xaa at residues 27, 32, 37 and 59 is Pro or hydroxy-Pro
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Asp Xaa Ser Lys Cys Asp Arg Cys Asn Cys Ala Xaa Leu Arg Ser Ser
Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr Xaa Xaa Leu Cys Thr Xaa
Ser Ile Ser Cys Xaa Thr Gly Xaa Cys Arg Cys Thr Lys Phe His Gln
Ser Arg Cys Thr Arg Phe Val Xaa Cys Val Xaa Asn Lys Cys Arg Asp
Ala
65
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      29
<211>
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      PRT
<213> Conus geographus
<220>
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       PEPTIDE
<222>
       (1)..(29)
       Xaa at residues 9 and 23 is Glu or gamma-carboxy-Glu; Xaa at resi
       due 28 is Pro or hydroxy-Pro; Xaa at residue 15 is Tyr, 125I-Tyr,
        mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 128
Lys Phe Leu Ser Gly Gly Phe Lys Xaa Ile Val Cys His Arg Xaa Cys
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1
                5
                                     10
                                                         15
Ala Lys Gly Ile Ala Lys Xaa Phe Cys Asn Cys Xaa Asp
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      PRT
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       Conus imperialis
<220>
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       PEPTIDE
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       (1)..(7)
       Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 6 is Trp (D o
       r L) or bromo-Trp (D or L)
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Xaa Cys Gly Gln Ala Xaa Cys
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       130
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       524
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       (7)..(285)
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       Met His Leu Ser Leu Ala Ser Ser Ala Ala Leu Met Leu Leu
                       5
ctg ctt ttt gcc ttg ggc aac ttc gtt ggg gtc cag cca gga caa ata
                                                                        96
Leu Leu Phe Ala Leu Gly Asn Phe Val Gly Val Gln Pro Gly Gln Ile
                    20
                                         25
aga gat ctg aac aaa gga cag ctc aag gac aac cgc cgt aac ctg caa
                                                                       144
Arg Asp Leu Asn Lys Gly Gln Leu Lys Asp Asn Arg Arg Asn Leu Gln
                35
                                     40
tcg cag agg aaa caa atg agt ctc ctc aag tca ctt cat gat cga aat
                                                                       192
Ser Gln Arg Lys Gln Met Ser Leu Leu Lys Ser Leu His Asp Arg Asn
            50
                                 55
                                                     60
ggg tgt aac ggc aac acg tgt tcc aat agc ccc tgc cct aac aac tgt
                                                                       240
Gly Cys Asn Gly Asn Thr Cys Ser Asn Ser Pro Cys Pro Asn Asn Cys
        65
                             70
tat tgc gat act gag gac gac tgc cac cct gac agg cgt gaa cat
                                                                       285
Tyr Cys Asp Thr Glu Asp Asp Cys His Pro Asp Arg Arg Glu His
tagagattag agagttteet tgtcaacatg atgtegeace acacetetge tetgeagtqt
                                                                       345
gtacategae cagtegaege atetgttatt tetttgtetg ttggattgta categaecag
                                                                       405
tocacgoate tgttatttct ttgtctgttt gatttgtttt cgtgtgttca taacacacag
                                                                       465
ageettteta ttatetgtat tgeaataeae tttgeetgat aaccagaaag teeagtget
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       93
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      PRT
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<400> 131
Met His Leu Ser Leu Ala Ser Ser Ala Ala Leu Met Leu Leu Leu
Phe Ala Leu Gly Asn Phe Val Gly Val Gln Pro Gly Gln Ile Arg Asp
Leu Asn Lys Gly Gln Leu Lys Asp Asn Arg Arg Asn Leu Gln Ser Gln
Arg Lys Gln Met Ser Leu Leu Lys Ser Leu His Asp Arg Asn Gly Cys
Asn Gly Asn Thr Cys Ser Asn Ser Pro Cys Pro Asn Asn Cys Tyr Cys
Asp Thr Glu Asp Asp Cys His Pro Asp Arg Arg Glu His
<210>
       132
<211>
       32
<212>
      PRT
<213> Conus imperialis
<220>
       PEPTIDE
<221>
<222>
       (1)..(32)
      Xaa at residues 22 and 31 is Glu or gamma-carboxy-Glu; Xaa at res
       idues 13, 14 and 27 is Pro or hydroxy-Pro; Xaa at residue 18 is T
       yr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phosp
       ho-Tyr
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Asn Gly Cys Asn Gly Asn Thr Cys Ser Asn Ser Xaa Cys Xaa Asn Asn
Cys Xaa Cys Asp Thr Xaa Asp Asp Cys His Xaa Asp Arg Arg Xaa His
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                                                                      48
Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr
                                    10
ctg gca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cac
                                                                      96
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
eeg aag aga gag tte eat egt att etg eta agg eet gae aga eag tee
                                                                     144
Pro Lys Arg Glu Phe His Arg Ile Leu Leu Arg Pro Asp Arg Gln Ser
gaa acg gct tgt agg tcg ctc gga agc tac caa tgt atg ggt aaa tgc
                                                                     192
Glu Thr Ala Cys Arg Ser Leu Gly Ser Tyr Gln Cys Met Gly Lys Cys
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caa ctc ggg gtt cat tcc tgg tgt gaa tgc att tat aac cga ggt agt
                                                                         240
Gln Leu Gly Val His Ser Trp Cys Glu Cys Ile Tyr Asn Arg Gly Ser
cag aag tct gga tgc gcg tgt agg tgt caa aag tgattaattg actcatttaa
                                                                         293
Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys
ctcgttgaac gatttaaaaa atccagagca atatgttcga gaaaaaccga agacgac
                                                                         350
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       134
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       91
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Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
Pro Lys Arg Glu Phe His Arg Ile Leu Leu Arg Pro Asp Arg Gln Ser
Glu Thr Ala Cys Arg Ser Leu Gly Ser Tyr Gln Cys Met Gly Lys Cys
Gln Leu Gly Val His Ser Trp Cys Glu Cys Ile Tyr Asn Arg Gly Ser
Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys
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       45
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<213>
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       Glu or gamma-carboxy-Glu; Xaa at residue 25 is Trp (D or L) or br omo-Trp (D or L); Xaa at residues 12 and 30 is Tyr, 125I-Tyr, mon
       o-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 135
Xaa Ser Xaa Thr Ala Cys Arg Ser Leu Gly Ser Xaa Gln Cys Met Gly
Lys Cys Gln Leu Gly Val His Ser Xaa Cys Xaa Cys Ile Xaa Asn Arg
Gly Ser Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys
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<212> DNA
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<220>
<221> CDS
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acg gcc agt cag ctc att aca gct gat tac tcc aga gat aag cag gag
                                                                       96
Thr Ala Ser Gln Leu Ile Thr Ala Asp Tyr Ser Arg Asp Lys Gln Glu
tat cgt gca gag agg ctg aga gac gca atg ggg aaa ttc aaa ggt tcc
                                                                      144
Tyr Arg Ala Glu Arg Leu Arg Asp Ala Met Gly Lys Phe Lys Gly Ser
agg tog tgc gga cat agt ggt gca ggt tgt tat act cgc cct tgc tgc
                                                                      192
Arg Ser Cys Gly His Ser Gly Ala Gly Cys Tyr Thr Arg Pro Cys Cys
                                 55
cct ggt ctg cat tgc tct ggc ggc caa gct gga ggc ctg tgc gtg
                                                                      237
Pro Gly Leu His Cys Ser Gly Gly Gln Ala Gly Gly Leu Cys Val
                             70
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                                                                      297
tcatccatac ctgtgctcga g
                                                                      318
.<210> 137
<211> 77
<212> PRT
<213> Conus lividus
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Ser Gln Leu Ile Thr Ala Asp Tyr Ser Arg Asp Lys Gln Glu Tyr Arg
Ala Glu Arg Leu Arg Asp Ala Met Gly Lys Phe Lys Gly Ser Arg Ser
Cys Gly His Ser Gly Ala Gly Cys Tyr Thr Arg Pro Cys Cys Pro Gly
Leu His Cys Ser Gly Gly Gln Ala Gly Gly Leu Cys Val
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       PEPTIDE
       (1)..(30)
<222>
       Xaa at residues 13 and 16 is Pro or hydroxy-Pro; Xaa at residue 1
       0 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O
       -phospho-Ty
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Ser Cys Gly His Ser Gly Ala Gly Cys Xaa Thr Arg Xaa Cys Cys Xaa
Gly Leu His Cys Ser Gly Gly Gln Ala Gly Gly Leu Cys Val
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		20						25								
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tac Tyr	cgt Arg	gct Ala	gtg Val	agg Arg 35	ttg Leu	aga Arg	gac Asp	gca Ala	atg Met 40	cgg Arg	aat Asn	ttc Phe	aaa Lys	ggt Gly 45	acc Thr	144
agg Arg	gac Asp	tgc Cys	ggg Gly 50	gaa Glu	tca Ser	ggt Gly	caa Gln	ggt Gly 55	tgc Cys	tat Tyr	agt Ser	gta Val	cgt Arg 60	cct Pro	tgc Cys	192
tgc Cys	cct Pro	ggt Gly 65	ctg Leu	att Ile	tgc Cys	aaa Lys	ggc Gly 70	acc Thr	ggt Gly	ggt Gly	gga Gly	ggc Gly 75	ctg Leu	tgc Cys	cgg Arg	240
		ggc Gly		tgat	tatct	cc (cctct	igtgo	ct co	cacco	ctctt	t ttg	gcct	gagt		292
cato	cat	acc t	gtgo	ctcga	ag											312
<210 <211 <212 <213	.> !>	140 82 PRT Conus	s liv	7idus	5											
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Ser	Glu	Phe	Leu 20	Thr	Ala	Asp	Tyr	Ser 25	Arg	Asp	Lys	Arg	Gln 30	Tyr	Arg	
Ala	Val	Arg 35	Leu	Arg	Asp	Ala	Met 40	Arg	Asn	Phe	Lys	Gly 45	Thr	Arg	Asp	
Cys	Gly 50	Glu	Ser	Gly	Gln	Gly 55	Cys	Tyr	Ser	Val	Arg 60	Pro	Cys	Суѕ	Pro	
Gly 65	Leu	Ile	Суз	Lys	Gly 70	Thr	Gly	Gly	Gly	Gly 75	Leu	Cys	Arg	Pro	Ser 80	
Gly	Ile															
<210 <211 <212	.>	141 35 PRT														

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<222>
        (1)..(35)
        Xaa at residue 4 is Glu or gamma-carboxy-Glu; Xaa at residues 14,
<223>
         17 and 32 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr, 125I-
        Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Asp Cys Gly Xaa Ser Gly Gln Gly Cys Xaa Ser Val Arg Xaa Cys Cys
Xaa Gly Leu Ile Cys Lys Gly Thr Gly Gly Gly Leu Cys Arg Xaa
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Ser Gly Ile
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<220>
<221>
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       Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 2 is Tyr, 125I-Tyr, mono-iodo
<223>
        -Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Val Xaa Xaa Thr His Xaa
                  5
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       Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 2 is Tyr, 125I-Tyr, mono-iodo
        -Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Arg Xaa Lys Asn Ser Xaa
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        Xaa at residue 2 is Pro or hydroxy-Pro; Xaa at residue 6 is Trp (
        D or L) or bromo-Trp (D or L)
<400> 144
Ala Arg Xaa Lys Asn Ser Xaa
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<211>
       6
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<213>
      Conus magus
<220>
<221>
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<222>
       (1)..(6)
<223>
       Xaa at residue 3 is Pro or hydroxy-Pro; Xaa at residue 7 is Trp (
       D or L) or bromo-Trp (D or L)
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Arg Xaa Lys Asn Ser Xaa
                5
<210> 146
<211>
       360
<212>
       DNA
<213>
       Conus miles
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      CDS
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       Met Lys Leu Thr Cys Val Val Ile Val Ala Val Leu Phe Leu
acg gee tgt caa ete att aet get geg aat tae gee aga gat gaa eag
                                                                       96
Thr Ala Cys Gln Leu Ile Thr Ala Ala Asn Tyr Ala Arg Asp Glu Gln
                                                             30
gag tac ccc gct gtg agg tcg agc gac gtg atg cag gat tcc gaa gac
                                                                      144
Glu Tyr Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Asp
                35
ttg acg ttg acc aag aaa tgc acg gac gat tct cag ttc tgt aac cct
                                                                      192
Leu Thr Leu Thr Lys Lys Cys Thr Asp Asp Ser Gln Phe Cys Asn Pro
            50
tcg aat cat gac tgc tgc agt ggg aag tgt atc gac gaa gga gac aac
                                                                      240
Ser Asn His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn
                            70
ggc ata tgc gct ata gtc cct gaa aac tct taacaatgta tactgacatt
                                                                      290
Gly Ile Cys Ala Ile Val Pro Glu Asn Ser
                        85
tececetetg tgeteegeeg teegtggeet gaetegteea teettgggeg tggteatgaa
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ccgctcggtt
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      147
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      88
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Cys Gln Leu Ile Thr Ala Ala Asn Tyr Ala Arg Asp Glu Gln Glu Tyr
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Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Asp Leu Thr
Leu Thr Lys Lys Cys Thr Asp Asp Ser Gln Phe Cys Asn Pro Ser Asn
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His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile
Cys Ala Ile Val Pro Glu Asn Ser
<210> 148
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      36
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       (1)..(36)
<223>
       Xaa at residues 23 and 34 is Glu or gamma-carboxy-Glu; Xaa at res
       idues 10 and 33 is Pro or hydroxy-Pro
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Ser Gly Lys Cys Ile Asp Xaa Gly Asp Asn Gly Ile Cys Ala Ile Val
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Xaa Xaa Asn Ser
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                                                                          48
                                              10
acg gcc tgt caa ctc att act gct gcg aat tac gcc aga gat gaa cag
                                                                          96
Thr Ala Cys Gln Leu Ile Thr Ala Ala Asn Tyr Ala Arg Asp Glu Gln
15
                     20
gag tac cct gct gtg agg tcg agc gac gtg atg cag gat tcc gaa gac
                                                                         144
Glu Tyr Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Āsp
                 35
ctg acg ttg acc aag aaa tgc acg gag gat tct cag ttc tgt aac cct
                                                                         192
Leu Thr Leu Thr Lys Lys Cys Thr Glu Asp Ser Gln Phe Cys Asn Pro
tog aat cat gac tgc tgc agt ggg aag tgt atc gac gaa gga gac aac
                                                                         240
Ser Asn His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn
ggc ata tgc gct ata gtc cct gaa aac tct taacaatgta tactgacatt
                                                                         290
Gly Ile Cys Ala Ile Val Pro Glu Asn Ser
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Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Asp Leu Thr
Leu Thr Lys Lys Cys Thr Glu Asp Ser Gln Phe Cys Asn Pro Ser Asn
His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile
Cys Ala Ile Val Pro Glu Asn Ser
<210> 151
<211> 36
<212> PRT
<213> Conus miles
<220>
<221>
      PEPTIDE
<222>
       (1)..(36)
<223>
       Xaa at residues 3, 23 and 34 is Glu or gamma-carboxy-Glu; Xaa at
       residues 10 and 33 is Pro or hydroxy-Pro
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Ser Gly Lys Cys Ile Asp Xaa Gly Asp Asn Gly Ile Cys Ala Ile Val
Xaa Xaa Asn Ser
        35
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             Leu Thr Cys Val Val Ile Ile Ala Val Leu Phe Leu Thr
gcc tgt caa ctc act aca gct gtg act tcc tcc aga ggt caa cag aag
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Ala Cy 15	s Gln	Leu	Thr	Thr	Ala 20	Val	Thr	Ser	Ser	Arg 25	Gly	Gln	Gln	Lys	
cat·cg His Ar 30	t gct g Ala	ctg Leu	agg Arg	tca Ser 35	act Thr	gac Asp	aaa Lys	aac Asn	tcc Ser 40	agg Arg	atg Met	acc Thr	aag Lys	cgt Arg 45	146
tgc ac Cys Th	g cct r Pro	cca Pro	ggt Gly 50	gga Gly	ctc Leu	tgt Cys	tac Tyr	cat His 55	gct Ala	tat Tyr	ccc Pro	tgc Cys	tgc Cys 60	agc Ser	194
aag ac Lys Th	t tgc r Cys	aat Asn 65	ctc Leu	gat Asp	acc Thr	agc Ser	caa Gln 70	tgt Cys	gag Glu	cct Pro	agg Arg	tgg Trp 75	tca Ser		239
tgaaccactc aataccctct cctctggagg cttcagagga actacattga aataaaaccg														299	
														327	
<210> <211> <212> <213>	153 76 PRT Conu	s mi	liar:	is											
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Leu Th	r Thr	Ala 20	Val	Thr	Ser	Ser	Arg 25	Gly	Gln	Gln	Lys	His 30	Arg	Ala	
Leu Ar	g Ser 35	Thr	Asp	Lys	Asn	Ser 40	Arg	Met	Thr	Lys	Arg 45	Cys	Thr	Pro	
Pro Gl;	y Gly	Leu	Cys	Tyr	His 55	Ala	Tyr	Pro	Cys	Cys 60	Ser	Lys	Thr	Cys	
Asn Le	ı Asp	Thr	Ser	Gln 70	Cys	Glu	Pro	Arg	Trp 75	Ser					
<210> <211> <212> <213>	154 31 PRT Conu	s mi	liar	is											
<220> <221> <222> <223>	4 , or L	.(31 at re 13 an) or	esid nd 2 bro	8 is mo-Tı	Pro rp (I	or b O or	nydro L);	oxy-1 Xaa	Pro; at :	Xaa resid	at : dues	resio 9 an	due 3 nd 12	residue 30 is Trp 2 is Tyr, -phospho-	(D 125
<400>	154	-, 1111	0110	_040-	+ y + ,	, ar		o т У-	_, 0-	SUL	J110	гАт () <u> </u>	hiroshiro-	т Ä t.
Cys Th		Xaa	Gly 5	Gly	Leu	Cys	Xaa	His 10	Ala	Xaa	Xaa	Cys	Cys 15	Ser	
Lys Th	r Cys	Asn 20	Leu	Asp	Thr	Ser	Gln 25	Cys	Xaa	Xaa	Arg	Xaa 30	Ser		
<210> <211> <212> <213>	155 193 DNA Conu	s mo	nachi	us											

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                              Ser Asp Val Arg Asn Ala Ala Val His
                                                                     102
gaa aga cag aag gat ctg gtc gtt acg gcc acc acg act tgc tgt ggt
Glu Arg Gln Lys Asp Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly
                                        20
                                                                     150
tat aat eeg atg aca atg tge eet eet tge atg tge aet aat ace tge
Tyr Asn Pro Met Thr Met Cys Pro Pro Cys Met Cys Thr Asn Thr Cys
                                    35
                                                                     193
aaa aaa agt ggc tgatgctcca ggaccctctg aaccacgacg t
Lys Lys Ser Gly
       156
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<213> Conus monachus
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Ser Asp Val Arg Asn Ala Ala Val His Glu Arg Gln Lys Asp Leu Val
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Pro Pro Cys Met Cys Thr Asn Thr Cys Lys Lys Ser Gly
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<222>
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<223>
       Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 17, 22 and 2
       3 is Pro or hydroxy-Pro; Xaa at residue 15 is Tyr, 125I-Tyr, mono
       -iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Ty
<400> 157
Xaa Lys Asp Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Xaa Asn
Xaa Met Thr Met Cys Xaa Xaa Cys Met Cys Thr Asn Thr Cys Lys
Ser
<210>
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ctg gca Leu Ala															96
ctg aag Leu Lys															144
act ctt Thr Leu 50															192
gat tgc Asp Cys 65															240
cct ggg Pro Gly															282
tgaatca	ttt a	aact	egtt	ga aa	agati	tttt	t aaa	aaat	ccag	agct	tata	tgt 1	tcga	gaaaaa	342
ccgaaga	.C														350
<210> <211> <212> <213>	159 94 PRT Conus	s moi	nachi	ıs											
<400>	159	~ .	N. 1	G 1	73 T -	N# - 1	D1	TT - 3	т.	т.	т.	.	D)	m)	
Met Met 1	. ser	гуз	ме с 5	СΤΆ	Ala	мес	File	10	ьеи	ьeu	њеu	ьeu	15	Inc	
Leu Ala	Ser	Ser 20	Gln	Gln	Glu	Gly	Asp 25	Val	Gln	Ala	Arg	Lys 30	Thr	Ser	
Leu Lys	Ser 35	Asp	Phe	Tyr	Arg	Ala 40	Leu	Arg	Gly	Tyr	Asp 45	Arg	Gln	Cys	
Thr Let 50	ı Val	Asn	Asn	Cys	Asp 55	Arg	Asn	Gly	Glu	Arg 60	Ala	Cys	Asn	Gly	
Asp Cys 65	Ser	Cys	Glu	Gly 70	Gln	Ile	Cys	Lys	Cys 75	Gly	Tyr	Arg	Val	Ser 80	
Pro Gly	/ Lys	Ser	Gly 85	Cys	Ala	Cys	Thr	Cys 90	Arg	Asn	Ala	Lys			
<210> <211> <212> <213>	160 48 PRT Conu	s mo:	nach	us											
<220> <221> <222> <223>	Glu	.(48 at r or aa a	esid gamm t re	a-ca sidu	rbox e 31	y-Gl is	u; X Tyr,	aa a 125	t re	sidu	e 35	is	Pro	13 and or hydro , di-ioo	xy-Pr

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Xaa Cys Thr Leu Val Asn Asn Cys Asp Arg Asn Gly Xaa Arg Ala Cys
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Val Ser Xaa Gly Lys Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
<210> 161
<211> 211
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                                                                       48
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
gca cct agc gtt gat gcc aaa gtt cat ctg aag acc aaa ggt gat ggg
                                                                       96
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
            20
ccc ctg tca tct ttc cga gat aat gca aag agt acc cta caa aga ctt
                                                                      144
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
cag gac aaa agc act tgc tgt ggc ttt aag atg tgt att cct tgt cgt
                                                                      192
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
                                                                      211
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Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
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gga cag ata aca aga gat gtg gac aat ggg cag ctc gcg gac aac cgc
                                                                      96
Gly Gln Ile Thr Arg Asp Val Asp Asn Gly Gln Leu Ala Asp Asn Arg
cgt acc ctg cga tcg cag tgg aag caa gtg agt ttc ttc aag tca ctt
                                                                     144
Arg Thr Leu Arg Ser Gln Trp Lys Gln Val Ser Phe Phe Lys Ser Leu
                            40
gat aaa cga ctg act tgt aac gat cct tgc cag atg cat tcc gat tgc
                                                                     192
Asp Lys Arg Leu Thr Cys Asn Asp Pro Cys Gln Met His Ser Asp Cys
qqc ata tqt qaa tqc qtq qaa aat aaa tqc ata ttt ttc atq
                                                                     234
Gly Ile Cys Glu Cys Val Glu Asn Lys Cys Ile Phe Phe Met
taaacggatt gagtttgctt gtcaacacaa tgtcgcactg cagctcttct ctaccggtgg
                                                                     294
gtacategae caaacgaege atettttatt tetttgtetg tttegtttgt teteetgtgt
                                                                     354
tcataacgta cagagecett taactaceet tactgetett caettaacet gataacetga
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aggtccggtg cagctggcgt agccttcaca gtttcg
                                                                     450
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Gly Gln Ile Thr Arg Asp Val Asp Asn Gly Gln Leu Ala Asp Asn Arg
Arg Thr Leu Arg Ser Gln Trp Lys Gln Val Ser Phe Phe Lys Ser Leu
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Gly Ile Cys Glu Cys Val Glu Asn Lys Cys Ile Phe Phe Met
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      27
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<213> Conus pennaceus
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       Xaa at residues 17 and 20 is Glu or gamma-carboxy-Glu; Xaa at res
       idue 6 is Pro or hydroxy-Pro
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Xaa Cys Val Xaa Asn Lys Cys Ile Phe Phe Met
            20
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                                    10
tgt caa ctc agt aca gct gat gac tcc aga gat gag cag gat cct
                                                                       96
Cys Gln Leu Ser Thr Ala Asp Asp Ser Arg Asp Glu Gln Gln Asp Pro
                                25
ttg gtg agg tcg cat cgt gag gag cag aaa gcc gag gac ccc aag acq
                                                                      144
Leu Val Arg Ser His Arg Glu Glu Gln Lys Ala Glu Asp Pro Lys Thr
gcc gag aga tgt tca gat ttc gga tcc gac tgt gtt cct gct act cat
                                                                      192
Ala Glu Arg Cys Ser Asp Phe Gly Ser Asp Cys Val Pro Ala Thr His
    50
aac tgc tgc agt ggt gaa tgt ttt ggc ttc gag gac ttc ggc tta tgc
                                                                      240
Asn Cys Cys Ser Gly Glu Cys Phe Gly Phe Glu Asp Phe Gly Leu Cys
acg taaaactggt ctgacgtctg atattccccc ctctgtcctt catcctcttt
                                                                      293
tgcctgattc atccatacct atatgtgctc ctgaaccgct gtgtaccttt accctggtgg
                                                                      353
413
<210> 168
<211> 81
<212> PRT
<213> Conus pulicarius
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Met Lys Leu Thr Cys Val Val Ile Val Ala Val Leu Phe Leu Thr Ala
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Cys Gln Leu Ser Thr Ala Asp Asp Ser Arg Asp Glu Gln Gln Asp Pro

Leu Ser Ile Phe Cys

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Leu Val Arg Ser His Arg Glu Glu Gln Lys Ala Glu Asp Pro Lys Thr
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Thr
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<222>
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       idue 10 is Pro or hydroxy-Pro
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Ser Gly Xaa Cys Phe Gly Phe Xaa Asp Phe Gly Leu Cys Thr
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                                                                      101
Phe Leu Leu Val Ser Met Ala Thr Ser His Arg Tyr Ala Arg Gly
                                    20
aag cag gcg acg cga agg aac gca atc aac atc aga cgg aga agc aca
                                                                      149
Lys Gln Ala Thr Arg Arg Asn Ala Ile Asn Ile Arg Arg Arg Ser Thr
cca aaa act gag gcg tgc gaa gag gtc tgt gag ctg gaa gaa aag cac
                                                                      197
Pro Lys Thr Glu Ala Cys Glu Glu Val Cys Glu Leu Glu Glu Lys His
tgc tgc tgc ata aga agt gac gga ccc aaa tgt tcc cgt aag tgc ctg
                                                                      245
Cys Cys Cys Ile Arg Ser Asp Gly Pro Lys Cys Ser Arg Lys Cys Leu
    60
ttg tca atc ttc tgt tagtttctgt acactgtctc attcattatc ttatcagtac
                                                                      300
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75
aagtgtaaac gagacatgtc agaaagtcga aggttgtgcg taatttgata agtattgttt
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gctgggatga acgga
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Met Ala Thr Ser His Arg Tyr Ala Arg Gly Lys Gln Ala Thr Arg Arg
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Asn Ala Ile Asn Ile Arg Arg Ser Thr Pro Lys Thr Glu Ala Cys
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Glu Glu Val Cys Glu Leu Glu Glu Lys His Cys Cys Cys Ile Arg Ser
Asp Gly Pro Lys Cys Ser Arg Lys Cys Leu Leu Ser Ile Phe Cys
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<220>
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<222>
       (1)..(37)
      Xaa at residues 4, 7, 8, 11, 13 and 14 is Glu or gamma-carboxy-Gl
<223>
       u; Xaa at residues 3 and 25 is Pro or hydroxy-Pr
<400> 172
Xaa Lys Thr Xaa Ala Cys Xaa Xaa Val Cys Xaa Leu Xaa Xaa Lys His
                5
                                    10
Cys Cys Cys Ile Arg Ser Asp Gly Xaa Lys Cys Ser Arg Lys Cys Leu
Leu Ser Ile Phe Cys
        35
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       DNA
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      CDS
<222>
      (24)..(260)
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gacaggattg aacaaaattc agg atg tca gga ttg gga atc atg gtg cta acc
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                          Met Ser Gly Leu Gly Ile Met Val Leu Thr
                          1
                                                              10
ctt cta ctt ctt gtg tcc atg gca acc aac cat cag gat aga gga gag
                                                                     101
Leu Leu Leu Val Ser Met Ala Thr Asn His Gln Asp Arg Gly Glu
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25

aag ca Lys Gl	g gtg n Val	acg Thr 30	caa Gln	agg Arg	gac Asp	gca Ala	atc Ile 35	aac Asn	gtc Val	aga Arg	cgg Arg	aga Arg 40	aga Arg	tca Ser	149
atc ac Ile Th	c cag r Gln 45	caa Gln	gtc Val	gta Val	tct Ser	gag Glu 50	gag Glu	tgc Cys	aaa Lys	aag Lys	tac Tyr 55	tgt Cys	aag Lys	aaa Lys	197
cag aa Gln As 60	n Lys	aat Asn	tgc Cys	tgc Cys	agc Ser 65	agt Ser	aaa Lys	cat His	gaa Glu	gaa Glu 70	ccc Pro	aga Arg	tgt Cys	gcc Ala	245
	aag ata tgc ttc gga tagtttctgt acacggtctc attcattatt ttatcagtac Lys Ile Cys Phe Gly 75														300
aagttaaacg agacctatca gaagtcgaag gttgtgcata atttgataaa cattgtttgc														360	
tgggat	gaac (gga													373
<210> <211> <212> <213>	174 79 PRT Conu:	s pu:	rpura	ascer	ns										
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Met Al	a Thr	Asn 20	His	Gln	Asp	Arg	Gly 25	Glu	Lys	Gln	Val	Thr 30	Gln	Arg	
Asp Al	a Ile 35	Asn	Val	Arg	Arg	Arg 40	Arg	Ser	Ile	Thr	Gln 45	Gln	Val	Val	
Ser Gl 50	u Glu	Cys	Lys	Lys	Tyr 55	Cys	Lys	Lys	Gln	Asn 60	Lys	Asn	Cys	Cys	
Ser Se	r Lys	His	Glu	Glu 70	• •	Arg	Cys	Ala	Lys 75		Cys	Phe	Gly		
<210> <211> <212> <213>	175 32 PRT Conu	s pu:	rpura	ascer	ns										
<220> <221> <222> <223>	at r	.(32) at re esid	esid ue 2!	5 is	Pro	or l	nydro	оху-І	Pro;	Xaa	at 1	resid	due 9	oxy-Glu; 9 is Tyr -phospho	, 125
<400> Val Va 1	175 l Ser	Xaa	Xaa 5	Cys	Lys	Lys	Xaa	Cys 10	Lys	Lys	Gln	Asn	Lys 15	Asn	
Cys Cy	s Ser	Ser 20	Lys	His	Xaa	Xaa	Xaa 25	Arg	Cys	Ala	Lys	Ile 30	Cys	Phe	
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<220>															

<210> 179

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       s Pro or hydroxy-Pro; Xaa at residue 22 is Tyr, 125I-Tyr, mono-io
       do-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Asp Cys Cys Gly Val Lys Leu Xaa Met Cys His Xaa Cys Leu Cys Asp
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Asn Ser Cys Lys Asn Xaa Gly Lys
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       177
<211> 235
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                                                                       48
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
ttc act tca gat cgt gca tcg gat gac agg aat acc aac gac aaa gca
                                                                       96
Phe Thr Ser Asp Arg Ala Ser Asp Asp Arg Asn Thr Asn Asp Lys Ala
                                                    30
            20
tct cgc ctg ctc tct cac gtt gtc agg gga tgc tgt ggt agc tat ccc
                                                                      144
Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Ser Tyr Pro
        35
aat gct gcc tgt cat cct tgc ggt tgt aaa gat agg cca tcg tat tgt
                                                                      192
Asn Ala Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys
ggt caa gga cgc tgatgctcca ggaccctctg aaccacgacg t
                                                                      235
Gly Gln Gly Arg
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<211> 68
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<400> 178
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Arg Ala Ser Asp Asp Arg Asn Thr Asn Asp Lys Ala
Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Ser Tyr Pro
Asn Ala Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys
                         55
                                             60
Gly Gln Gly Arg
65
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<220>
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      (1)..(25)
      Xaa at residues 7, 13 and 20 is Pro or hydroxy-Pro; Xaa at residu
       es 6 and 22 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulph
       o-Tyr or O-phospho-Tyr
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Gly Cys Cys Gly Ser Xaa Xaa Asn Ala Ala Cys His Xaa Cys Gly Cys
                                    10
Lys Asp Arg Xaa Ser Xaa Cys Gly Gln
            20
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       DNA
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tte ace gta gat egt gea act gat gge agg agt get gea gee ata geg
                                                                       96
Phe Thr Val Asp Arg Ala Thr Asp Gly Arg Ser Ala Ala Ala Ile Ala
                                25
ttt gcc ctg atc gct ccg acc gtc cgg gaa gga tgc tgt tct aat cct
                                                                      144
Phe Ala Leu Ile Ala Pro Thr Val Arg Glu Gly Cys Cys Ser Asn Pro
gcc tgt cat cct tgc ggt tgt aaa gat agg cca tcg tat tgt ggt caa
                                                                      192
Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys Gly Gln
                                                                      229
gga cgc tgatgctcca ggaccctctg aaccacgacg t
Gly Arg
65
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Phe Thr Val Asp Arg Ala Thr Asp Gly Arg Ser Ala Ala Ala Ile Ala
Phe Ala Leu Ile Ala Pro Thr Val Arg Glu Gly Cys Cys Ser Asn Pro
Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys Gly Gln
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Gly Arg
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      23
<212>
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<213>
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       PEPTIDE
<221>
<222>
       (1)..(23)
       Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residues 7,
<223>
       11 and 18 is Pro or hydroxy-Pro; Xaa at residue 20 is Tyr, 125I-T
       yr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Xaa Gly Cys Cys Ser Asn Xaa Ala Cys His Xaa Cys Gly Cys Lys Asp
Arg Xaa Ser Xaa Cys Gly Gln
            20
<210>
       183
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       334
<212>
       DNA
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<220>
       CDS
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      (1)..(261)
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ctg gca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cgc
                                                                       96
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg
                                                                      144
ctg acg agg gac ttc tat cgt act ctg cca gtg tct act aga gga tgc
Leu Thr Arg Asp Phe Tyr Arg Thr Leu Pro Val Ser Thr Arg Gly Cys
                             40
age gge tee eet tgt ttt aaa aac aaa aeg tgt egg gat gaa tge ata
                                                                      192
Ser Gly Ser Pro Cys Phe Lys Asn Lys Thr Cys Arg Asp Glu Cys Ile
                                                                      240
tgc ggc ggc tta tcc aat tgt tgg tgt ggc tac ggc ggt agt cga gga
Cys Gly Gly Leu Ser Asn Cys Trp Cys Gly Tyr Gly Gly Ser Arg Gly
                    70
tgc aag tgt aca tgt aga gag tgattaatcg actctttaac tcgttgaatt
                                                                      291
Cys Lys Cys Thr Cys Arg Glu
atttaaaaaa tccagagcaa tatgttcgag aaaaaccgaa gac
                                                                      334
<210>
       184
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       87
<212>
<213> Conus purpurascens
<400> 184
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Leu Thr Arg Asp Phe Tyr Arg Thr Leu Pro Val Ser Thr Arg Gly Cys
Ser Gly Ser Pro Cys Phe Lys Asn Lys Thr Cys Arg Asp Glu Cys Ile
Cys Gly Gly Leu Ser Asn Cys Trp Cys Gly Tyr Gly Gly Ser Arg Gly
Cys Lys Cys Thr Cys Arg Glu
                 85
      185
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       41
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       PRT
<213>
       Conus purpurascens
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<221>
       PEPTIDE
<222>
       (1)..(41)
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       Xaa at residue 16 is Glu or gamma-carboxy-Glu; Xaa at residue 6 i
       s Pro or hydroxy-Pro; Xaa at residue 26 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 29 is Tyr, 125I-Tyr, mono-iodo-Tyr,
       di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Gly Cys Ser Gly Ser Xaa Cys Phe Lys Asn Lys Thr Cys Arg Asp Xaa
Cys Ile Cys Gly Gly Leu Ser Asn Cys Xaa Cys Gly Xaa Gly Gly Ser
Arg Gly Cys Lys Cys Thr Cys Arg Xaa
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        327
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                                                                          100
Leu Thr Ile Cys Leu Leu Phe Pro Ile Thr Ala Leu Leu Met Asp
                          15
gga gat caa cct gca gac cga cct gca gaa cgt atg gat tac gac att
                                                                          148
Gly Asp Gln Pro Ala Asp Arg Pro Ala Glu Arg Met Asp Tyr Asp Ile
25
                      30
tca tct gag gtg cat cgt ttg ctt gaa agg aga cac ccg ccc tgt tgc
                                                                          196
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Ser Ser Glu Val His Arg Leu Leu Glu Arg Arg His Pro Pro Cys Cys

		45					50					55		
atg tac g Met Tyr G														244
tgc cag g Cys Gln G 7		taad	cgtgt	itg a	atga	ccaa	ct ti	igtta	acac	g gc	tacgi	caa		296
gtgtctact	g aataa	agtaa	aa a	cgatt	gca	g t								327
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Pro Ile T	hr Ala 20	Leu	Leu	Met	Asp	Gly 25	Asp	Gln	Pro	Ala	Asp 30	Arg	Pro	
Ala Glu A	rg Met 5	Asp	Tyr	Asp	Ile 40	Ser	Ser	Glu	Val	His 45	Arg	Leu	Leu	
Glu Arg A 50	rg His	Pro	Pro	Cys 55	Cys	Met	Tyr	Gly	Arg 60	Cys	Arg	Arg	Tyr	
Pro Gly C 65	ys Ser	Ser	Ala 70	Ser	Cys	Cys	Gln	Gly 75	Gly					
<210> 18 <211> 24 <212> PR <213> Co		rpura	ascer	ns										
<222> (1 <223> Xa s	PTIDE)(24 a at re 7 and 1	esidu 13 is	s Ty	r, 12	25I-	14 : Tyr,	is P: mond	ro o: o-iod	r hyd do-T <u>i</u>	drox;	y-Pro di-io	o; Xa odo-1	aa at res Tyr, O-su	idue lpho
<400> 18 His Xaa X 1		Cys 5	Met	Xaa	Gly	Arg	Cys 10	Arg	Arg	Xaa	Xaa	Gly 15	Cys	
Ser Ser A	ala Ser 20	Cys	Cys	Gln	Gly									
<210> 18 <211> 24 <212> PR <213> Co		rpura	ascei	ns										
<222> (1 <223> Xa id	PTIDE)(24 la at relues 7 lues 7	esid and 1	17 i:	s Ty	r, 1:	25I-	14 . Tyr,	is Pi mon	ro o: o-io	r hy do-T	drox	y-Pro di-io	o; Xaa at odo-Tyr,	res O-si
<400> 18	19													

Gly Xaa Xaa Cys Cys Leu Xaa Gly Ser Cys Arg Xaa Phe Xaa Gly Cys 10 15	
Xaa Asn Ala Leu Cys Cys Arg Lys 20	
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aca gcc agt cag ctc gtt aca gct gat tac acc aga gat aaa tgg caa Thr Ala Ser Gln Leu Val Thr Ala Asp Tyr Thr Arg Asp Lys Trp Gln 15 20 25 30	;
tac cct gca gcg agt ttg aga ggc gga atg tgg aat ttg aga gat acc Tyr Pro Ala Ala Ser Leu Arg Gly Gly Met Trp Asn Leu Arg Asp Thr 35 40 45	:
agg gcg tgc tcg caa gta ggt gaa gct tgt ttt cct cag aaa cct tgc 192 Arg Ala Cys Ser Gln Val Gly Glu Ala Cys Phe Pro Gln Lys Pro Cys 50 55 60	,
tgc cct gga ttc ctt tgc aat cac atc gga ggc atg tgc cac cac Cys Pro Gly Phe Leu Cys Asn His Ile Gly Gly Met Cys His His 65 70 75	7
tagtaacagt etggeatetg atattteece tetgegetee accetettt ggetgattea 297	7
teettaeetg tgtgtggtea tgaaceaete agtagetaea eetetggtgg etteagagga 357	7
cgtatatcaa aataaaacca cattgcaaaa aaaaaaaaaa)
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Ser Gln Leu Val Thr Ala Asp Tyr Thr Arg Asp Lys Trp Gln Tyr Pro 20 25 30	
Ala Ala Ser Leu Arg Gly Gly Met Trp Asn Leu Arg Asp Thr Arg Ala 35 40 45	
Cys Ser Gln Val Gly Glu Ala Cys Phe Pro Gln Lys Pro Cys Cys Pro 50 60	
Gly Phe Leu Cys Asn His Ile Gly Gly Met Cys His His 65 70 75	
<210> 192 <211> 30	

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<213> Conus quercinus
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<221>
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        14 and 17 is Pro or hydroxy-Pro
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Ala Cys Ser Gln Val Gly Xaa Ala Cys Phe Xaa Gln Lys Xaa Cys Cys
Xaa Gly Phe Leu Cys Asn His Ile Gly Gly Met Cys His His
<210> 193
<211>
      11
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      PRT
<213>
      Conus quercinus
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<221>
       PEPTIDE
<222>
       (1)..(11)
<223>
      Xaa at residue 4 is Pro or hydroxy-Pro
<400> 193
Asp Cys Gln Xaa Cys Gly His Asn Val Cys Cys
<210>
<211>
      336
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      DNA
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<221>
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      (2)..(241)
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  Met Asn Cys Leu Val Leu Ala Leu Val Thr Ile Gly Leu Leu Ala Ala
aca acc gca gcc cct ctg gac acc acc acg gtc ctc ctc agc aca act
                                                                       97
Thr Thr Ala Ala Pro Leu Asp Thr Thr Thr Val Leu Leu Ser Thr Thr
aca cgc gat gtc aag ggc tgt gtg tac gag ggc ata gag tac agt gtc
                                                                      145
Thr Arg Asp Val Lys Gly Cys Val Tyr Glu Gly Ile Glu Tyr Ser Val
        35
gga gag acc tac cag gca gac tgc aac acg tgt cgc tgt gat ggc ttt
                                                                      193
Gly Glu Thr Tyr Gln Ala Asp Cys Asn Thr Cys Arg Cys Asp Gly Phe
                                                                      241
gac ctg gct aca tgc acc gtc gcg ggc tgc aca ggc ttt gga ccc gag
Asp Leu Ala Thr Cys Thr Val Ala Gly Cys Thr Gly Phe Gly Pro Glu
tgattggtac tattccacac ctagcaatgt tcacactgga accggaactt gatactacct
                                                                      301
tctaaatata atcaatttgt ttcaaaaggc ccaaa
                                                                      336
<210> 195
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      Conus radiatus
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Thr Thr Ala Ala Pro Leu Asp Thr Thr Thr Val Leu Leu Ser Thr Thr
Thr Arg Asp Val Lys Gly Cys Val Tyr Glu Gly Ile Glu Tyr Ser Val
                            40
Gly Glu Thr Tyr Gln Ala Asp Cys Asn Thr Cys Arg Cys Asp Gly Phe
Asp Leu Ala Thr Cys Thr Val Ala Gly Cys Thr Gly Phe Gly Pro Glu
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      43
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<213>
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<222>
       (1)..(43)
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      Xaa at residues 5, 8, 13 and 43 is Glu or gamma-carboxy-Glu; Xaa
       at residue 42 is Pro or hydroxy-Pro; Xaa at residues 4,9 and 15 i
       s Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-ph
       ospho-Tyr
<400> 196
Gly Cys Val Xaa Xaa Gly Ile Xaa Xaa Ser Val Gly Xaa Thr Xaa Gln
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Ala Asp Cys Asn Thr Cys Arg Cys Asp Gly Phe Asp Leu Ala Thr Cys
Thr Val Ala Gly Cys Thr Gly Phe Gly Xaa Xaa
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<211>
      536
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      CDS
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ctggacagga ttcaacaaaa ttcagg atg tca gga ttg gga atc atg gtg cta
                                                                      113
                             Met Ser Gly Leu Gly Ile Met Val Leu
acc ctt cta ctt ctt gtg tcc atg gca acc agt cgt cag gat aga gga
                                                                      161
Thr Leu Leu Leu Val Ser Met Ala Thr Ser Arg Gln Asp Arg Gly
10
                    15
                                        20
gtg gga cag ctg atg cca cgc gtc tcg ttc aaa gcc tgc aaa tca aat
                                                                      209
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Val Gly Gln Leu Met Pro Arg Val Ser Phe Lys Ala Cys Lys Ser Asn

30 35 40 tat gat tgc ccc cag cgt ttc aaa tgc tgc agt tac acc tgg aat gga 25 Tyr Asp Cys Pro Gln Arg Phe Lys Cys Cys Ser Tyr Thr Trp Asn Gly 45 50 55	7
tcc agt gga tac tgt aaa cgt gtt tgc tat ctt tat cgt tagtgtaata 30 Ser Ser Gly Tyr Cys Lys Arg Val Cys Tyr Leu Tyr Arg 60 65 70	16
cacaaagtga ctctgttcat tcctctccat catctcttta gaaacaacac ggtgtcgaga 36	6
tcgtttcttt gtgatgaaga gtagtatcac gggcagagtt cactagagat ctcaaatgaa 42	:6
aaacaagatt atttagtaag ttggggaaaa tctggatctc gaaaagattc cttgaaaact 48	6
ccgtatttaa cacgcttgag agatgataat aaagaattct gaaagacaaa 53	36
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Val Ser Phe Lys Ala Cys Lys Ser Asn Tyr Asp Cys Pro Gln Arg Phe 35 40 45	
Lys Cys Cys Ser Tyr Thr Trp Asn Gly Ser Ser Gly Tyr Cys Lys Arg 50 55 60	
Val Cys Tyr Leu Tyr Arg 65 70	
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Xaa Thr Xaa Asn Gly Ser Ser Gly Xaa Cys Lys Arg Val Cys Xaa Leu 20 25 30	
Xaa Arg	
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ctg gca tcc agc cag gaa gga gat gtc cag gca agg aaa aca cac
                                                                       96
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
ccg aag aga gag ttc caa cgt att ctg cta agg tct ggc aga aag tgc
                                                                      144
Pro Lys Arg Glu Phe Gln Arg Ile Leu Leu Arg Ser Gly Arg Lys Cys
                            40
aat ttc gac aaa tgt aaa ggt acc gga gtc tac aat tgt ggg gaa tcc
                                                                      192
Asn Phe Asp Lys Cys Lys Gly Thr Gly Val Tyr Asn Cys Gly Glu Ser
                        55
tgc tca tgc gaa ggt ttg cac agt tgt cgc tgc act tat aac atc gqt
                                                                      240
Cys Ser Cys Glu Gly Leu His Ser Cys Arg Cys Thr Tyr Asn Ile Gly
tct atg aag tct gga tgc gcg tgt att tgt aca tac tat taatgattaa
                                                                      289
Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Tyr Tyr
                8.5
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cgaagac
                                                                      356
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       93
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      PRT
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Pro Lys Arg Glu Phe Gln Arg Ile Leu Leu Arg Ser Gly Arg Lys Cys
Asn Phe Asp Lys Cys Lys Gly Thr Gly Val Tyr Asn Cys Gly Glu Ser
Cys Ser Cys Glu Gly Leu His Ser Cys Arg Cys Thr Tyr Asn Ile Gly 65 70 75 80
Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Tyr Tyr
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<220>
<221>
      PEPTIDE
<222> (1)..(47)
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<223> Xaa at residues 17 and 22 is Glu or gamma-carboxy-idues 13, 31, 46 and 47 is Tyr, 125I-Tyr, mono-iod Tyr, O-sulpho-Tyr or O-phospho-Tyr	
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Xaa Ser Cys Ser Cys Xaa Gly Leu His Ser Cys Arg Cys Thr X 20 25 30	Kaa Asn
Ile Gly Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Xaa X 35 40 45	Kaa
<210> 203 <211> 338 <212> DNA <213> Conus radiatus	
<220> <221> CDS <222> (1)(264)	
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ctg gca tcc agg cag cag gaa gga gat gtc cag gca agg aaa a Leu Ala Ser Arg Gln Gln Glu Gly Asp Val Gln Ala Arg Lys T 20 25 30	
ctg acg agc gac ttc tat agt gtt ctg caa agg tat gga cta g Leu Thr Ser Asp Phe Tyr Ser Val Leu Gln Arg Tyr Gly Leu G 35 40 45	gga tgc 144 Gly Cys
gct ggc act tgt ggt tca agc agc aat tgt gtt aga gat tat t Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val Arg Asp Tyr C 50 55 60	
tgc cca aaa ccc aat tgt tac tgc act ggc aaa ggc ttt cgt c Cys Pro Lys Pro Asn Cys Tyr Cys Thr Gly Lys Gly Phe Arg G 65 70 75	
gga tgc ggg tgt tca tgt ttg ggg tgattaattg gctcttttaa ctc Gly Cys Gly Cys Ser Cys Leu Gly 85	egttgaac 294
gatttaaaaa atccagagca atatgttcga gaaaaaccga agac	338
<210> 204 <211> 88 <212> PRT <213> Conus radiatus	
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Leu Ala Ser Arg Gln Gln Glu Gly Asp Val Gln Ala Arg Lys T 20 25 30	Thr Arg
Leu Thr Ser Asp Phe Tyr Ser Val Leu Gln Arg Tyr Gly Leu G 35 40 45	Gly Cys

Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val Arg Asp Tyr Cys Asp

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50
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                                             60
Cys Pro Lys Pro Asn Cys Tyr Cys Thr Gly Lys Gly Phe Arg Gln Pro
Gly Cys Gly Cys Ser Cys Leu Gly
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<212>
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<213>
       Conus radiatus
<220>
<221>
      PEPTIDE
<222>
       (1)...(44)
      Xaa at residues 23, 25 and 37 is Pro or hydroxy-Pro; Xaa at resid
       ues 1, 19 and 28 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
<400> 205
Xaa Gly Leu Gly Cys Ala Gly Thr Cys Gly Ser Ser Asn Cys Val
Arg Asp Xaa Cys Asp Cys Xaa Lys Xaa Asn Cys Xaa Cys Thr Gly Lys
Gly Phe Arg Gln Xaa Gly Cys Gly Cys Ser Cys Leu
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       DNA
<213>
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<220>
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       CDS
<222>
       (24)..(260)
<400> 206
                                                                       53
gacaggattg aacaaaattc agg atg tca gga ttg gga atc atg gtg ctg acc
                          Met Ser Gly Leu Gly Ile Met Val Leu Thr
ctt ttg ctt ctt gtg tcc atg gca acc agc cat aag gat gga gga gag
                                                                      101
Leu Leu Leu Val Ser Met Ala Thr Ser His Lys Asp Gly Glu
                15
                                                                      149
aag cag gcg atg caa agg gac gca atc aac gtc aga ctg aga aga tca
Lys Gln Ala Met Gln Arg Asp Ala Ile Asn Val Arg Leu Arg Arg Ser
            30
                                 35
                                                     40
ctc act cgg aga gca gta act gag gcg tgc acg gag gac tgt aag act
                                                                      197
Leu Thr Arg Arg Ala Val Thr Glu Ala Cys Thr Glu Asp Cys Lys Thr
cag gac aag aag tgc tgc ggc gaa atg aat gga caa cac aca tgt gcc
                                                                      245
Gln Asp Lys Lys Cys Cys Gly Glu Met Asn Gly Gln His Thr Cys Ala
                                             70
aag ata tgc ctc gga tagtctctgt acgctgtctc attcattatc tcatcagtac
                                                                      300
Lys Ile Cys Leu Gly
aagtgtaaac gagacaggtc agaaagtcga aggttgttcg aaatttgata aqcattgttt
                                                                       360
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actgggacga acgga
                                                                     375
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<211> 79
<212> PRT
<213> Conus sponsalis
<400> 207
Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Val Ser
Met Ala Thr Ser His Lys Asp Gly Gly Glu Lys Gln Ala Met Gln Arg
Asp Ala Ile Asn Val Arg Leu Arg Arg Ser Leu Thr Arg Arg Ala Val
Thr Glu Ala Cys Thr Glu Asp Cys Lys Thr Gln Asp Lys Lys Cys
Gly Glu Met Asn Gly Gln His Thr Cys Ala Lys Ile Cys Leu Gly
<210> 208
<211> 32
<212> PRT
<213> Conus sponsalis
<220>
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<222> (1)..(32)
<223> Xaa at residues 4, 8 and 20 is Glu or gamma-carboxy-Glu
<400> 208
Ala Val Thr Xaa Ala Cys Thr Xaa Asp Cys Lys Thr Gln Asp Lys Lys
Cys Cys Gly Xaa Met Asn Gly Gln His Thr Cys Ala Lys Ile Cys Leu
<210> 209
<211> 8
<212> PRT
<213> Conus stercusmuscarum
<220>
<221> PEPTIDE
<222>
       (1)..(8)
<223> Xaa at residues 3 and 6 is Pro or hydroxy-Pro; Xaa at residue 4 i
       s D-Trp
<400> 209
Gly Cys Xaa Xaa Gln Xaa Val Cys
<210> 210
<211> 9
<212> PRT
<213> Conus striatus
<220>
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<221>
<222>
       (1)..(9)
<223> Xaa at residue 7 is Pro or hydroxy-Pro
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<400> 210
Cys Ile Ile Arg Asn Cys Xaa Arg Gly
<210> 211
<211> 238
<212> DNA
<213> Conus striatus
<220>
<221> CDS
<222> (4)..(96)
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                                                                           48
    Ser Thr Arg Cys Leu Pro Asp Gly Thr Ser Cys Leu Phe Ser Arg
atc aga tgc tgc ggt act tgc agt tca atc tta aag tca tgt gtg agc Ile Arg Cys Cys Gly Thr Cys Ser Ser Ile Leu Lys Ser Cys Val Ser
                                                                           96
tgatccagcg gttgatcttc ctccctctgt gctccatcct tttctgcctg agttctcctt
                                                                          156
acctgagagt ggtcatgaac cactcatcac ctactcttct ggaggcttca gaggagctac
                                                                          216
agtgaaataa aagccgcatt gc
                                                                          238
<210> 212
<211> 31
<212> PRT
<213> Conus striatus
<400> 212
Ser Thr Arg Cys Leu Pro Asp Gly Thr Ser Cys Leu Phe Ser Arg Ile
Arg Cys Cys Gly Thr Cys Ser Ser Ile Leu Lys Ser Cys Val Ser
<210> 213
<211> 28
<212> PRT
<213> Conus striatus
<220>
<221> PEPTIDE
<222>
       (1)..(28)
<223> Xaa at residue 3 is Pro or hydroxy-Pro
<400> 213
Cys Leu Xaa Asp Gly Thr Ser Cys Leu Phe Ser Arg Ile Arg Cys Cys
Gly Thr Cys Ser Ser Ile Leu Lys Ser Cys Val Ser
<210> 214
<211> 707
<212> DNA
<213> Conus striatus
<220>
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<222> (171)..(539) <400> 214 cggcttctaa tacgactcac tatagggcaa gcagtggtaa caacgcagag tacgcggggg 60 gacggcagac cagctgggga ccagacagac gtcaaacagc atcgcagtca ggtgtggaga 120 toccaagaca cocagaagaa ggagacagaa gagttatogt togtaacaca atg qoo 176 Met Ala atg aac atg tcg atg aca ctc tgc atg ttt gta atg gtc gtc gtg gca 224 Met Asn Met Ser Met Thr Leu Cys Met Phe Val Met Val Val Val Ala 10 gcc act gtc att gat tcc act cag tta caa gaa cca gat ctc agt cgc 272 Ala Thr Val Ile Asp Ser Thr Gln Leu Gln Glu Pro Asp Leu Ser Arg 25 30 atg cga cgc agc ggg cct gct gac tgt tgc agg atg aaa gag tgt tgc 320 Met Arg Arg Ser Gly Pro Ala Asp Cys Cys Arg Met Lys Glu Cys Cys 40 45 acc gac aga gtg aac gag tgt cta cag cgc tat tct ggc cgg gaa gat 368 Thr Asp Arg Val Asn Glu Cys Leu Gln Arg Tyr Ser Gly Arg Glu Asp aaa ttc gtt tcg ttt tgt tat cag gag gcc aca gtc aca tgt gga tct 416 Lys Phe Val Ser Phe Cys Tyr Gln Glu Ala Thr Val Thr Cys Gly Ser 70 ttt aac gaa atc gtg ggc tgt tgc tat gga tat caa atg tgc atg ata 464 Phe Asn Glu Ile Val Gly Cys Cys Tyr Gly Tyr Gln Met Cys Met Ile 85 cga gtt gtg aaa ccg aac agt cta agt ggg gcc cat gag gcg tgc aaa 512 Arg Val Val Lys Pro Asn Ser Leu Ser Gly Ala His Glu Ala Cys Lys 105 110 acc gtt tct tgt ggt aac cct tgc gct tgaggtgtcc tcgcgccacg 559 Thr Val Ser Cys Gly Asn Pro Cys Ala 120 tcacctgtgt acagcgccgt caccagagcc ctgatcttta tgcccttatc tqtctttttq 619 ctctttcact ctctgaagtc ttgaggtttg ttccattctt gtcaatcatc tcacqcqcat 679 ccaagtaaat aaaggtgacg tgacaaac 707 <210> 215 <211> 123 <212> PRT <213> Conus striatus <400> 215 Met Ala Met Asn Met Ser Met Thr Leu Cys Met Phe Val Met Val Val Val Ala Ala Thr Val Ile Asp Ser Thr Gln Leu Gln Glu Pro Asp Leu Ser Arg Met Arg Arg Ser Gly Pro Ala Asp Cys Cys Arg Met Lys Glu Cys Cys Thr Asp Arg Val Asn Glu Cys Leu Gln Arg Tyr Ser Gly Arg

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Glu Asp Lys Phe Val Ser Phe Cys Tyr Gln Glu Ala Thr Val Thr Cys
                    70
Gly Ser Phe Asn Glu Ile Val Gly Cys Cys Tyr Gly Tyr Gln Met Cys
Met Ile Arg Val Val Lys Pro Asn Ser Leu Ser Gly Ala His Glu Ala
Cys Lys Thr Val Ser Cys Gly Asn Pro Cys Ala
        115
<210>
       216
<211>
<212>
      PRT
<213> Conus striatus
<220>
<221>
      PEPTIDE
<222>
      (1)..(86)
<223> Xaa at residues 11, 19, 28, 38, 48 and 74 is Glu or gamma-carboxy
       -Glu; Xaa at residues 3, 66 and 84 is Pro or hydroxy-Pro; Xaa at
       residues 24, 26, 54 and 56 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-io
       do-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 216
Ser Gly Xaa Ala Asp Cys Cys Arg Met Lys Xaa Cys Cys Thr Asp Arg
Val Asn Xaa Cys Leu Gln Arg Xaa Ser Gly Arg Xaa Asp Lys Phe Val
                                                    30
Ser Phe Cys Xaa Gln Xaa Ala Thr Val Thr Cys Gly Ser Phe Asn Xaa
                            40
Ile Val Gly Cys Cys Xaa Gly Xaa Gln Met Cys Met Ile Arg Val Val
Lys Xaa Asn Ser Leu Ser Gly Ala His Xaa Ala Cys Lys Thr Val Ser
Cys Gly Asn Xaa Cys Ala
<210> 217
<211> 14
<212> PRT
<213> Conus striatus
<220>
<221>
       PEPTIDE
<222>
       (1)..(14)
      Xaa at residues 1 and 3 is Trp (D or L) or bromo-Trp (D or L)
<400> 217
Xaa Ser Xaa Arg Met Gly Asn Gly Asp Arg Arg Ser Asp Gln
<210>
      218
<211>
      343
<212>
      DNA
<213> Conus striolatus
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Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu Thr
                                                                         48
                                      10
ctg gca tcc agc cag gag gga gat gtc cag gca agg aaa aca agc
                                                                         96
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Ser
ctg aag agc gac ttc tat cgt gct ctg aga ccg tat gac aga cag tgc
                                                                        144
Leu Lys Ser Asp Phe Tyr Arg Ala Leu Arg Pro Tyr Asp Arg Gln Cys
        35
                             40
act ttt gtc aac aat tgt caa cag aac ggt gcg tgt aac ggt gat tgc
                                                                        192
Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Ala Cys Asn Gly Asp Cys
tet tgc ggg gac cag att tgt aaa tgc ggt tat aga atc agt eet ggg
                                                                        240
Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Tyr Arg Ile Ser Pro Gly
                                                               80
agg tca gga tgc gcg tgt act tgt aga aat gcc aaa tgaatcactt
                                                                        286
Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
aactcgttga aagattttta aaaatccaga gctatatgtt cgagaaaaac cgaagac
                                                                        343
<210>
       219
<211>
<212>
       PRT
<213> Conus striolatus
Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu Thr
                                      10
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Ser
Leu Lys Ser Asp Phe Tyr Arg Ala Leu Arg Pro Tyr Asp Arg Gln Cys
Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Ala Cys Asn Gly Asp Cys
Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Tyr Arg Ile Ser Pro Gly
Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
<210> 220
<211>
       46
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       PRT
<213>
       Conus striolatus
<220>
<221>
       PEPTIDE
<222>
       (1)..(46)
<223>
       Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 33 is Pro or
       hydroxy-Pro; Xaa at residue 29 is Tyr, 125I-Tyr, mono-iodo-Tyr, d
       i-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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<400> 220
Xaa Cys Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Ala Cys Asn Gly
Asp Cys Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Xaa Arg Ile Ser
Xaa Gly Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
<210>
       221
<211>
       398
<212>
      DNA
<213> Conus tessulatus
<220>
<221>
      CDS
<222>
       (7)..(240)
<400> 221
ggatcc atg aaa ctg acg tgt gtg gtg atc atc gcc gtg ctg ttc ctg
Met Lys Leu Thr Cys Val Val Ile Ile Ala Val Leu Phe Leu
                                                                          48
acg gcc tgt caa ttc att ata gct gat ttc tcc aga gat aag cgg gta
                                                                          96
Thr Ala Cys Gln Phe Ile Ile Ala Asp Phe Ser Arg Asp Lys Arg Val
cat cgt gca gag agg ttg aga gac ata atg cag aat ttc aga ggt acc
                                                                         144
His Arg Ala Glu Arg Leu Arg Asp Ile Met Gln Asn Phe Arg Gly Thr
                                                           45
agg tcg tgc gcg gaa ttt ggt gaa gtt tgt agt tct acc gct tgc tgc
                                                                         192
Arg Ser Cys Ala Glu Phe Gly Glu Val Cys Ser Ser Thr Ala Cys Cys
cct gat ttg gat tgc gtt gag gcc tat tca ccc atc tgt ctc tgg gaa
                                                                         240
Pro Asp Leu Asp Cys Val Glu Ala Tyr Ser Pro Ile Cys Leu Trp Glu
tagtctggca tctgatattt cccgtctgtg ctctacctac ttctgccgga ttcatccata
                                                                         300
cctatgtgtg gccatgaacc actcagtacc tacacctctg gtggcttcct agggacgtat
                                                                         360
atcaaaataa aaccacattg caaaaaaaaa aaaaaaaa
                                                                         398
<210> 222
<211>
       78
<212>
       PRT
<213> Conus tessulatus
<400> 222
Met Lys Leu Thr Cys Val Val Ile Ile Ala Val Leu Phe Leu Thr Ala
Cys Gln Phe Ile Ile Ala Asp Phe Ser Arg Asp Lys Arg Val His Arg
             20
Ala Glu Arg Leu Arg Asp Ile Met Gln Asn Phe Arg Gly Thr Arg Ser
Cys Ala Glu Phe Gly Glu Val Cys Ser Ser Thr Ala Cys Cys Pro Asp
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Leu Asp Cys Val Glu Ala Tyr Ser Pro Ile Cys Leu Trp Glu
<210>
       223
<211>
       31
<212>
       PRT
<213>
      Conus tessulatus
<220>
<221>
       PEPTIDE
<222>
       (1)..(31)
<223> Xaa at residues 4, 7 and 22 is Glu or gamma-carboxy-Glu; Xaa at r
       esidues 16 and 26 is Pro or hydroxy-Pro; Xaa at residue 30 is Trp
        (D or L) or bromo-Trp (D or L); Xaa at residue 24 is Tyr, 125I-T
       yr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 223
Ser Cys Ala Xaa Phe Gly Xaa Val Cys Ser Ser Thr Ala Cys Cys Xaa
Asp Leu Asp Cys Val Xaa Ala Xaa Ser Xaa Ile Cys Leu Xaa Xaa
<210>
       224
<211>
       273
<212>
      DNA
<213>
      Conus textile
<400> 224
cgattgcagg ggttacgatg cgccgtgtag ctctggcgcg ccatgttgtg attggtggac
                                                                       60
atgttcagca cgaaccaacc gctgttttta ggctgaccac aagccatccg acatcaccac
                                                                      120
tctcctcttc agaggcttca aggctttttg ttctcctttt gaagaatctt tacgagtgaa
                                                                      180
caaacaagta gaatagcacg tttttccccc tttgaaaaat caataatgga ggttaaacaa
                                                                      240
aactgtcttc ttcaataaag attttatcat aat
                                                                      273
<210> 225
<211>
      50
<212>
      PRT
<213> Conus textile
<400> 225
Ile Gln Gly Gly Asp Glu Arg Gln Lys Ala Lys Ile Asn Phe Leu
Ser Arg Ser Asp Arg Asp Cys Arg Gly Tyr Asp Ala Pro Cys Ser Ser
            20
Gly Ala Pro Cys Cys Asp Trp Trp Thr Cys Ser Ala Arg Thr Asn Arg
Cys Phe
    50
<210> 226
<211> 29
<212> PRT
<213> Conus textile
<220>
<221>
      PEPTIDE
<222>
       (1)..(29)
      Xaa at residues 8 and 14 is Pro or hydroxy-Pro; Xaa at residues 1
```

8 and 19 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 5 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p

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hospho-Tyr
<400> 226
Asp Cys Arg Gly Xaa Asp Ala Xaa Cys Ser Ser Gly Ala Xaa Cys Cys
Asp Xaa Xaa Thr Cys Ser Ala Arg Thr Asn Arg Cys Phe
<210>
       227
<211>
      23
<212> PRT
<213> Conus textile
<220>
<221>
       PEPTIDE
<222>
       (1)..(23)
<223>
      Xaa at residue 16 is Glu or gamma-carboxy-Glu; Xaa at residues 3,
       11, 12, 22 and 23 is Pro or hydroxy-Pro; Xaa at residues 4, 5 an
       d 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr o
       r O-phospho-Tyr
<400> 227
Asn Cys Xaa Xaa Cys Val Val Xaa Cys Cys Xaa Xaa Ala Xaa Cys Xaa
Ala Ser Gly Cys Arg Xaa Xaa
<210> 228
<211>
       205
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       DNA
<213>
       Conus textile
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       CDS
<222>
       (1)..(186)
<400> 228
atg cac tgt ctc cca atc ttc gtc att ctt ctg ctg ctg act gca tct
                                                                       48
Met His Cys Leu Pro Ile Phe Val Ile Leu Leu Leu Thr Ala Ser
                                    10
gga cct agc gtt gat gcc caa ctg aag acc aaa gat gat gtg ccc ctg
                                                                       96
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
tca tct ttc cga gat cat gca aag agt acc cta cga aga ctt cag gac
                                                                      144
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
aaa cag act tgc tgt ggc tat agg atg tgt gtt cct tgt ggt
                                                                      186
Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
taaccagcat gaaggatcc
                                                                      205
<210> 229
<211>
      62
<212>
      PRT
<213> Conus textile
<400> 229
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Met His Cys Leu Pro Ile Phe Val Ile Leu Leu Leu Thr Ala Ser
                                    10
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
<210> 230
<211> 12
<212> PRT
<213> Conus textile
<220>
<221>
       PEPTIDE
<222>
       (1)..(12)
<223>
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 11 is Pro or
       hydroxy-Pro; Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di
       -iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 230
Xaa Thr Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
<210>
       231
<211>
      115
<212> DNA
<213> Conus textile
<220>
<221>
      CDS
<222>
      (2)..(94)
<400> 231
g tta tgg agc gat tgc tat agt tgg tta gga tca tgt att gcg ccc tcg
  Leu Trp Ser Asp Cys Tyr Ser Trp Leu Gly Ser Cys Ile Ala Pro Ser
cag tgt tgt tct gag gtt tgt gat tat tac tgc cgc cta tgg cga
                                                                       94
Gln Cys Cys Ser Glu Val Cys Asp Tyr Tyr Cys Arg Leu Trp Arg
            20
                                25
tgaactcgga ccacaagcca t
                                                                      115
<210>
       232
<211>
       31
<212>
      PRT
<213> Conus textile
<400> 232
Leu Trp Ser Asp Cys Tyr Ser Trp Leu Gly Ser Cys Ile Ala Pro Ser
Gln Cys Cys Ser Glu Val Cys Asp Tyr Tyr Cys Arg Leu Trp Arg
            2.0
                                25
<210>
      233
<211>
      28
<212>
      PRT
<213> Conus textile
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<220>
<221>
       PEPTIDE
<222>
       (1)..(28)
<223>
       Xaa at residue 18 is Glu or gamma-carboxy-Glu; Xaa at residue 13
       is Pro or hydroxy-Pro; Xaa at residues 5 and 27 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 3, 22 and 23 is Tyr, 125I-Ty
       r, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 233
Asp Cys Xaa Ser Xaa Leu Gly Ser Cys Ile Ala Xaa Ser Gln Cys Cys
Ser Xaa Val Cys Asp Xaa Xaa Cys Arg Leu Xaa Arg
                                  25
<210>
       234
<211>
       279
<212>
       DNA
<213> Conus textile
<220>
<221>
      CDS
<222>
       (7)..(126)
<400> 234
agctga cga atg aaa aat tcc gag aat gtc aag ctc agc aag aga aaa
                                                                           48
       Arg Met Lys Asn Ser Glu Asn Val Lys Leu Ser Lys Arg Lys
tgt gtg gaa caa tgg aaa tac tgc acc cga gag tcc tta tgt tgc gcg
                                                                           96
Cys Val Glu Gln Trp Lys Tyr Cys Thr Arg Glu Ser Leu Cys Cys Ala
                                                                30
ggt ttg tgt ttg ttt agt ttc tgc att cta taacgctaat ccagagtcgt
                                                                          146
Gly Leu Cys Leu Phe Ser Phe Cys Ile Leu
atattccgtc taagctccac ctggcactgt ctggtatgtt cctgccagtg actggtctca
                                                                          206
taccgcttag actctggtcc gtcttctctg caaccacagg agaacgtgca ttattacaat
                                                                          266
aaacgcatac tgc
                                                                          279
<210> 235
<211>
      4.0
<212> PRT
<213> Conus textile
<400> 235
Arg Met Lys Asn Ser Glu Asn Val Lys Leu Ser Lys Arg Lys Cys Val
Glu Gln Trp Lys Tyr Cys Thr Arg Glu Ser Leu Cys Cys Ala Gly Leu
Cys Leu Phe Ser Phe Cys Ile Leu
        35
<210>
       236
<211>
       27
<212>
       PRT
<213> Conus textile
<220>
<221> PEPTIDE
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<222>
       (1)..(27)
<223>
       Xaa at residues 4 and 12 is Glu or gamma-carboxy-Glu; Xaa at resi
       due 6 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 8 is
       Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phos
       pho-Tyr
<400> 236
Lys Cys Val Xaa Gln Xaa Lys Xaa Cys Thr Arg Xaa Ser Leu Cys Cys
Ala Gly Leu Cys Leu Phe Ser Phe Cys Ile Leu
<210>
       237
<211>
       510
<212>
       DNA
<213>
      Conus textile
<220>
<221>
       CDS
<222>
       (223)..(471)
<400> 237
cagageeget etggtgtgea gaeetgtete eageeeteeg teteeetgat eggtggttet
                                                                       60
gcctgcatag ctgtcttctc cacgaagctt tccacaggta taaataacgc ttcagtctcc
                                                                      120
cgtcctgtat tgggccgccg ttacaagcca gaccgataca gccaggtcca gtctactttg
                                                                      180
cgagtgagtt aaaagctcca gcattctacc agcatcacca ga atg aag gtg agc
                                                                      234
                                                Met Lys Val Ser
age gtg etg ate gtg get acg etg aca etg ace gea gge eag etg gtt
                                                                      282
Ser Val Leu Ile Val Ala Thr Leu Thr Leu Thr Ala Gly Gln Leu Val
                    10
                                        15
agt gct tct tcc cat tac tca aaa gat gtc cag att ctt cct tct gtg
                                                                      330
Ser Ala Ser Ser His Tyr Ser Lys Asp Val Gln Ile Leu Pro Ser Val
aga tca gct gac gaa gtg gaa aat tcc gag aat gtc agg ctc agc aag
                                                                      378
Arg Ser Ala Asp Glu Val Glu Asn Ser Glu Asn Val Arg Leu Ser Lys
aga aga tgt gtg gaa caa tgg gaa gtc tgc ggc ata atc ttg ttc tcc
                                                                      426
Arg Arg Cys Val Glu Gln Trp Glu Val Cys Gly Ile Ile Leu Phe Ser
                            60
tca tca tgt tgc ggg cag ttg tgt ttg ttt ggt ttc tgc gtt cta
                                                                      471
Ser Ser Cys Cys Gly Gln Leu Cys Leu Phe Gly Phe Cys Val Leu
                        7.5
taacgctaat ccagagtcgt atattccgtc taagctcca
                                                                      510
<210> 238
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<213> Conus textile
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Met Lys Val Ser Ser Val Leu Ile Val Ala Thr Leu Thr Leu Thr Ala
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Gly Gln Leu Val Ser Ala Ser Ser His Tyr Ser Lys Asp Val Gln Ile
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20
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                                                    30
Leu Pro Ser Val Arg Ser Ala Asp Glu Val Glu Asn Ser Glu Asn Val
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Arg Leu Ser Lys Arg Arg Cys Val Glu Gln Trp Glu Val Cys Gly Ile
Ile Leu Phe Ser Ser Cys Cys Gly Gln Leu Cys Leu Phe Gly Phe
Cys Val Leu
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<211> 29
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<220>
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<222>
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       Xaa at residues 3 and 6 is Glu or gamma-carboxy-Glu; Xaa at resid
       ue 5 is Trp (D or L) or bromo-Trp (D or L)
<400> 239
Cys Val Xaa Gln Xaa Xaa Val Cys Gly Ile Ile Leu Phe Ser Ser
Cys Cys Gly Gln Leu Cys Leu Phe Gly Phe Cys Val Leu
                                25
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      27
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<213>
      Conus textile
<220>
<221>
      PEPTIDE
<222>
       (1)..(27)
       Xaa at residues 9 and 13 is Glu or gamma-carboxy-Glu; Xaa at resi
       dues 4, 7 and 23 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
<400> 240
Cys Gly Gly Xaa Ser Thr Xaa Cys Xaa Val Asp Ser Xaa Cys Cys Ser
                                                        15
Asp Asn Cys Val Arg Ser Xaa Cys Thr Leu Phe
<210>
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      27
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<213> Conus textile
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<222>
       (1)..(27)
       Xaa at residues 8 and 13 is Glu or gamma-carboxy-Glu
<400> 241
Gly Cys Asn Asn Ser Cys Gln Xaa His Ser Asp Cys Xaa Ser His Cys
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Ile Cys Thr Ser Arg Gly Cys Gly Ala Val Asn
<210>
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                        Met Ser Gly Leu Gly Ile Met Val Leu Thr
ctt cta ctt ctt gtg tcc atg gca acc agt cat cgt tat gca aga gaa
                                                                      99
Leu Leu Leu Val Ser Met Ala Thr Ser His Arg Tyr Ala Arg Glu
aag cag geg aeg ega agg gae gea gte aac gte aga egg aga age aga
                                                                     147
Lys Gln Ala Thr Arg Arg Asp Ala Val Asn Val Arg Arg Arg Ser Arg
cca aaa aca aag gag tgc gaa agg tac tgt gag ctg gag gaa aag cac
                                                                     195
Pro Lys Thr Lys Glu Cys Glu Arg Tyr Cys Glu Leu Glu Glu Lys His
tgc tgc tgc ata aga agt aac gga ccc aaa tgt tcc aga ata tgc ata
                                                                     243
Cys Cys Cys Ile Arg Ser Asn Gly Pro Lys Cys Ser Arg Ile Cys Ile
ttc aaa ttt tgg tgt tagttttctg tacactgtcc attcattatc ttatcagtac
                                                                     298
Phe Lys Phe Trp Cys
75
aagtgtaaac gagacatgtc agaaagtcga aggttgtgcg taatttgata agcattgttt
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actgggacga acgga
                                                                     373
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<211>
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<213> Conus tulipa
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Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Val Ser
Met Ala Thr Ser His Arg Tyr Ala Arg Glu Lys Gln Ala Thr Arg Arg
Asp Ala Val Asn Val Arg Arg Ser Arg Pro Lys Thr Lys Glu Cys
Glu Arg Tyr Cys Glu Leu Glu Glu Lys His Cys Cys Cys Ile Arg Ser
Asn Gly Pro Lys Cys Ser Arg Ile Cys Ile Phe Lys Phe Trp Cys
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<211>
       37
<212>
      PRT
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<213> Conus tulipa
<220>
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<222>
       (1)..(37)
       Xaa at residues 5, 7, 11, 13 and 14 is Glu or gamma-carboxy-Glu;
<223>
       Xaa at residues 1 and 25 is Pro or hydroxy-Pro; Xaa at residue 36
        is Trp (D or L) or bromo-Trp (D or L);
<220>
<221>
       PEPTIDE
<222>
       (1)..(37)
       Xaa at residue 9 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
<400> 244
Xaa Lys Thr Lys Xaa Cys Xaa Arg Xaa Cys Xaa Leu Xaa Xaa Lys His
Cys Cys Cys Ile Arg Ser Asn Gly Xaa Lys Cys Ser Arg Ile Cys Ile
Phe Lys Phe Xaa Cys
        35
<210>
       245
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       381
<212>
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<213> Conus tulipa
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                        Met Ser Gly Leu Gly Ile Met Val Leu Thr
                                                             10
ctt ctc ctt ctt gtg cta atg aca acc agt cat cag gat gca gga gag
                                                                       99
Leu Leu Leu Val Leu Met Thr Thr Ser His Gln Asp Ala Gly Glu
aag cag gcg atg caa agg gac gca aag aac ttc agt cgg aga aga tta
                                                                      147
Lys Gln Ala Met Gln Arg Asp Ala Lys Asn Phe Ser Arg Arg Leu
gtc att cgg aga cca aaa aca agg gag tgc gaa atg cag tgt gag cag
                                                                      195
Val Ile Arg Arg Pro Lys Thr Arg Glu Cys Glu Met Gln Cys Glu Gln
        45
                            50
gag gag aaa cac tgc tgc cgc gta aga gat ggt acg ggc caa tgt gcc
                                                                      243
Glu Glu Lys His Cys Cys Arg Val Arg Asp Gly Thr Gly Gln Cys Ala
                        65
cct aag tgc ttg gga att aac tgg tagtttctgt acactgtctc attcattatc
                                                                      297
Pro Lys Cys Leu Gly Ile Asn Trp
                    80
ttatcagtac acgtgtaacg agacatgtca gaaagtcgaa ggtagtgcgt aatttgataa
                                                                      357
gcattgttta ctgggacgaa cgga
                                                                      381
<210> 246
<211> 82
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<213> Conus tulipa
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Asp Ala Lys Asn Phe Ser Arg Arg Leu Val Ile Arg Arg Pro Lys
Thr Arg Glu Cys Glu Met Gln Cys Glu Gln Glu Glu Lys His Cys Cys
Arg Val Arg Asp Gly Thr Gly Gln Cys Ala Pro Lys Cys Leu Gly Ile
Asn Trp
<210> 247
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      36
<212>
      PRT
<213> Conus tulipa
<220>
<221>
      PEPTIDE
<222>
      (1)..(36)
<223> Xaa at residues 5, 7, 11, 13 and 14 is Glu or gamma-carboxy-Glu;
      Xaa at residues 1 and 29 is Pro or hydroxy-Pro; Xaa at residue 36
        is Trp (D or L) or bromo-Trp (D or L)
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Cys Cys Arg Val Arg Asp Gly Thr Gly Gln Cys Ala Xaa Lys Cys Leu
Gly Ile Asn Xaa
        35
<210> 248
<211> 363
<212>
      DNA
<213> Conus tulipa
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<221>
      CDS
<222>
     (1)..(264)
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atg atg tcg aaa atg gga gct atg ttt gtc ctt ttg ctt ctt ttc acc
                                                                     48
Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr
ctg gca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cgc
                                                                     96
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg
ctg aag agc gac ttc tat cgt gct ctg cca agg ttt ggc cca ata tgc
                                                                     144
Leu Lys Ser Asp Phe Tyr Arg Ala Leu Pro Arg Phe Gly Pro Ile Cys
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act tgt ttt aaa agc cag aac tgt cgg ggt tct tgt gaa tgc atg tca Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser Cys Glu Cys Met Ser 50 55 60	192
cct ccc ggt tgt tac tgc agt aac aat ggc att cgt gaa cga gga tgc Pro Pro Gly Cys Tyr Cys Ser Asn Asn Gly Ile Arg Glu Arg Gly Cys 65 70 75 80	240
tcg tgt aca tgt cca ggg act ggt tgaatgattt gaaaaattca gagcaatatg Ser Cys Thr Cys Pro Gly Thr Gly 85	294
ttgcagaaaa accgaagacc gagacttctc acaataaatc cataaagaca ttaaaaaaaa	354
aaaaaaaaa	363
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Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg 20 25 30	
Leu Lys Ser Asp Phe Tyr Arg Ala Leu Pro Arg Phe Gly Pro Ile Cys 35 40 45	
Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser Cys Glu Cys Met Ser 50 55 60	
Pro Pro Gly Cys Tyr Cys Ser Asn Asn Gly Ile Arg Glu Arg Gly Cys 65 70 75 80	
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ctg gca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cgc Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg 20 25 30	96
ctg aag agc gac ttc tat cgt act ctg gca ata tct gac aga gga tgc Leu Lys Ser Asp Phe Tyr Arg Thr Leu Ala Ile Ser Asp Arg Gly Cys 35 40 45	144
act ggc aac tgt gat tgg acg tgt agc ggt gat tgc agc tgc cag ggc Thr Gly Asn Cys Asp Trp Thr Cys Ser Gly Asp Cys Ser Cys Gln Gly 50 55 60	192
aca tot gac tog tgt cac tgc att cca cca aaa tca ata ggc aac aga Thr Ser Asp Ser Cys His Cys Ile Pro Pro Lys Ser Ile Gly Asn Arg 65 70 75 80	240
tgc cgg tgt cag tgt aaa aga aaa atc gaa att gac tgattctttt Cys Arg Cys Gln Cys Lys Arg Lys Ile Glu Ile Asp	286
85 90	
aactcgttga acgatttaaa aatcagacca atatgtaggc agaaaaccga agactctgag	346
	346 383
aactcgttga acgatttaaa aatcagacca atatgtaggc agaaaaccga agactctgag	
aactcgttga acgatttaaa aatcagacca atatgtaggc agaaaaccga agactctgag actctcgtaa taatcgtaag caaaaaaaaa aaaaaaa <210> 252 <211> 92 <212> PRT	
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actctcgtaa taatcgtaag caaaaaaaaa aaaaaaaa <210> 252 <211> 92 <212> PRT <213> Conus tulipa <400> 252 Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr 1	

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<222>
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<223> Xaa at residue 44 is Glu or gamma-carboxy-Glu; Xaa at residues 27
       and 28 is Pro or hydroxy-Pro; Xaa at residue 8 is Trp (D or L) o
       r bromo-Trp (D or L)
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Gly Cys Thr Gly Asn Cys Asp Xaa Thr Cys Ser Gly Asp Cys Ser Cys
Gln Gly Thr Ser Asp Ser Cys His Cys Ile Xaa Xaa Lys Ser Ile Gly
Asn Arg Cys Arg Cys Gln Cys Lys Arg Lys Ile Xaa Ile Asp
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<212>
       DNA
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<221>
      CDS
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Met Lys Leu Thr Cys Val Val Ile Ile Thr Val Leu Phe Leu
                                                                      48
acg gcc agt cag ctc att aca gct gat tac tcc aga gat cag cgg cag
                                                                      96
Thr Ala Ser Gln Leu Ile Thr Ala Asp Tyr Ser Arg Asp Gln Arg Gln
                                        25
tac cgt gca gtg agg ttg gga gat gaa atg cgg aat ttc aaa ggt gcc
                                                                     144
Tyr Arg Ala Val Arg Leu Gly Asp Glu Met Arg Asn Phe Lys Gly Āla
                                    40
agg gac tgc ggg gga caa ggt gaa ggt tgt tat act caa cct tgc tgc
                                                                     192
Arg Asp Cys Gly Gly Gln Gly Glu Gly Cys Tyr Thr Gln Pro Cys Cys
cct ggt ctg cgg tgc cgt ggc ggt act gga gga ggc gta tgc cag
                                                                      240
Pro Gly Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Val Cys Gln
ctg tagtaatagt ttggcatctg atatttcccc tctgtgctcc accctctttt
                                                                      293
Leu
gcctgattca tccttaccta tgtgtggtca tgaaccactc agtagctaca cctctqqtqq
                                                                      353
404
       255
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       79
<211>
       PRT
<212>
<213> Conus virgo
<400> 255
Met Lys Leu Thr Cys Val Val Ile Ile Thr Val Leu Phe Leu Thr Ala
Ser Gln Leu Ile Thr Ala Asp Tyr Ser Arg Asp Gln Arg Gln Tyr Arg
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<212>

PRT

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Ala Val Arg Leu Gly Asp Glu Met Arg Asn Phe Lys Gly Ala Arg Asp
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Cys Gly Gly Gln Gly Glu Gly Cys Tyr Thr Gln Pro Cys Cys Pro Gly
Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Gly Val Cys Gln Leu
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       32
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<213>
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       Xaa at residue 7 is Glu or gamma-carboxy-Glu; Xaa at residues 13
<223>
       and 16 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr, 125I-Tyr,
        mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Asp Cys Gly Gln Gly Xaa Gly Cys Xaa Thr Gln Xaa Cys Cys Xaa
Gly Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Gly Val Cys Gln Leu
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tcg acc cag gtc ctg att caa ggt ggt gga gaa aaa cgc caa aaa gtc
                                                                       96
Ser Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val
                20
aac att ttt tca aaa aga aag aca gat gct gag acc tgg tgg gag ggc
                                                                      144
Asn Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly
            35
gaa tgc tct aat tgg tta gga agt tgt tcg acg ccc tca aat tgc tgt
                                                                      192
Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys
ctc aag agt tgt aat ggg cac tgc aca ttg tgg tgatgaactc tgaccacaaa
                                                                      245
Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp
                         70
gccatccaac atcaccgctc tcctcttcag agtcttcaag
                                                                      285
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Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val Asn
Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly Glu
Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys Leu
Lys Ser Cys Asn Gly His Cys Thr Leu Trp
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<213>
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       (1)..(31)
       Xaa at residues 3 and is Glu or gamma-carboxy-Glu; Xaa at residue
        16 is Pro or hydroxy-Pro; Xaa at residues 1, 2, 9 and 31 is Trp
       (D or L) or bromo-Trp (D or L)
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Xaa Xaa Xaa Gly Xaa Cys Ser Asn Xaa Leu Gly Ser Cys Ser Thr Xaa
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Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Xaa
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                                                                      48
Ile Met Gln Lys Leu Ile Ile Leu Leu Val Ala Ala Val Leu Met
                                    10
tcc acc cag gcc ctg att caa ggt ggt gga gga aaa cgc caa cag gca
                                                                      96
Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala
aag agc aag tat ttt tcc gaa aga aag gca cct gct aag cgt tgg ttt
                                                                     144
Lys Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe
gga cac gaa gaa tgc act tat tgg ttg ggg cct tgt gag gtg gac gac
                                                                     192
Gly His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp
acg tgt tgt tct gcc agt tgt gag tcc aag ttc tgc ggg ttg tgg
                                                                     237
Thr Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
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65
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tgatggacac tgaccacaag tcatcctaca tcgccactct cctgttcaga gtcttcaag
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<213> Conus radiatus
<400> 261
Ile Met Gln Lys Leu Ile Ile Leu Leu Val Ala Ala Val Leu Met
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Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala
Lys Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe
Gly His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp
Thr Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
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       33
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       PRT
<213>
      Conus radiatus
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       (1)..(33)
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       at residue 13 is Pro or hydroxy-Pro; Xaa at residues 1, 10 and 33
        is Trp (D or L) or bromo-Trp (D or L);
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       Xaa at residue 9 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
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Asp Asp Thr Cys Cys Ser Ala Ser Cys Xaa Ser Lys Phe Cys Gly Leu
Xaa
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       Conus wittigi
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<221>
      CDS
<222>
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                                                                       48
       Met Lys Leu Thr Cys Val Val Ile Ile Ala Leu Leu Phe Leu
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acg gcc tgt cag ctc att acg gct gat tac tcc aga gat gag cag tct Thr Ala Cys Gln Leu Ile Thr Ala Asp Tyr Ser Arg Asp Glu Gln Ser 25 30	
ggc agt aca gtg cgg ttt cta gac aga cca cgg cgt ttt ggt tcg ttc Gly Ser Thr Val Arg Phe Leu Asp Arg Pro Arg Arg Phe Gly Ser Phe 35 40 45	
ata ccg tgc gcc cgt tta ggt gaa cca tgt acc ata tgc tgc cgt cct Ile Pro Cys Ala Arg Leu Gly Glu Pro Cys Thr Ile Cys Cys Arg Pro 50 55 60	1
ttg agg tgc cgt gaa agc gga aca ccc aca tgt caa gtg tgattgtctg Leu Arg Cys Arg Glu Ser Gly Thr Pro Thr Cys Gln Val 65 70 75	
gcatctgata tttcccctct gtgccctacc ctcttttgcc tgagtcatcc atacctgtgc 301	
tcgag 306	;
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Thr Val Arg Phe Leu Asp Arg Pro Arg Arg Phe Gly Ser Phe Ile Pro 35 40 45	
Cys Ala Arg Leu Gly Glu Pro Cys Thr Ile Cys Cys Arg Pro Leu Arg 50 55 60	
Cys Arg Glu Ser Gly Thr Pro Thr Cys Gln Val 65 70 75	
<210> 265 <211> 33 <212> PRT <213> Conus wittigi	
<220> <221> PEPTIDE <222> (1)(33) <223> Xaa at residues 12 and 25 is Glu or gamma-carboxy-Glu; Xaa at residues 6, 13, 20 and 29 is Pro or hydroxy-Pro	3
<400> 265 Phe Gly Ser Phe Ile Xaa Cys Ala Arg Leu Gly Xaa Xaa Cys Thr Ile 1 5 10 15	
Cys Cys Arg Xaa Leu Arg Cys Arg Xaa Ser Gly Thr Xaa Thr Cys Gln 20 25 30	
Val	
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<220>
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<222>
       (7)..(240)
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       Met Lys Leu Thr Cys Val Val Ile Met Ala Ser Leu Phe Leu
gcg gcc tgt caa ttc ctt aca gct gga ggt gac tca aga agt aag cag
                                                                       96
Ala Ala Cys Gln Phe Leu Thr Ala Gly Gly Asp Ser Arg Ser Lys Gln
                    20
egg tat eet gat tgg agg etg gge tae ega aag tee aag ttg atg get
                                                                      144
Arg Tyr Pro Asp Trp Arg Leu Gly Tyr Arg Lys Ser Lys Leu Met Ala
                35
aag aag acg tgc ctg gaa cat aac aaa cta tgt tgg tat gat aga gac
                                                                      192
Lys Lys Thr Cys Leu Glu His Asn Lys Leu Cys Trp Tyr Asp Arg Asp
            50
                                55
tgc tgc acc ata tat tgt aat gaa aac aaa tgc ggc gtg aaa cct caa
                                                                      240
Cys Cys Thr Ile Tyr Cys Asn Glu Asn Lys Cys Gly Val Lys Pro Gln
tgaatgtttc acacacaca acacacaca acacacaca acacacaca acacacacac
                                                                      300
acacacaca atotggcgto tgaccattoc cootctgtgc totatoctot tgttoctqaq
                                                                      360
tcatccatac ctgtgctcga g
                                                                      381
<210> 267
<211>
       78
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<213>
      Conus regius
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Met Lys Leu Thr Cys Val Val Ile Met Ala Ser Leu Phe Leu Ala Ala
Cys Gln Phe Leu Thr Ala Gly Gly Asp Ser Arg Ser Lys Gln Arg Tyr
Pro Asp Trp Arg Leu Gly Tyr Arg Lys Ser Lys Leu Met Ala Lys Lys
Thr Cys Leu Glu His Asn Lys Leu Cys Trp Tyr Asp Arg Asp Cys Cys
Thr Ile Tyr Cys Asn Glu Asn Lys Cys Gly Val Lys Pro Gln
                    70
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<211>
       30
<212>
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<213>
      Conus regius
<220>
<221>
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<222>
       (1)..(30)
<223>
       Xaa at residues 4 and 22 is Glu or gamma-carboxy-Glu; Xaa at resi
       due 29 is Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D or L) o
       r bromo-Trp (D or L); Xaa at residues 11 and 19 is Tyr, 125I-Tyr,
```

<211>

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mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 268
Thr Cys Leu Xaa His Asn Lys Leu Cys Xaa Xaa Asp Arg Asp Cys Cys
Thr Ile Xaa Cys Asn Xaa Asn Lys Cys Gly Val Lys Xaa Gln
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<213> Conus radiatus
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<221> CDS
<222> (1)..(225)
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                                                                      48
Ile Met Gln Lys Leu Thr Ile Leu Leu Leu Val Ala Ala Ile Leu Met
                                    10
tcg acc cag gtc ctg att caa ggt ggt gga gaa aaa cgc caa aaa gtc
                                                                      96
Ser Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val
aac att ttt tca aaa aga aca gat gct gag acc tgg tgg gag ggc
                                                                     144
Asn Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly
gaa tgc tct aat tgg tta gga agt tgt tcg acg ccc tca aat tgc tgt
                                                                     192
Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys
                        55
ctc aag agt tgt aat ggg cac tgc aca ttg tgg tgatgaactc tgaccacaaa
                                                                     245
Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp
gccatccaac atcaccgctc tcctcttcag agtcttcaaq
                                                                     285
<210> 270
<211> 75
<212> PRT
<213> Conus radiatus
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Ser Thr Gln Val Leu Ile Gln Gly Gly Gly Glu Lys Arg Gln Lys Val
Asn Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly
Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys
Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp
<210>
      271
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<213> Conus radiatus
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<221>
       PEPTIDE
<222>
      (1)..(31)
      Xaa at residues 3 and 5 is Glu or gamma-carboxy-Glu; Xaa at resid
       ue 16 is Pro or hydroxy-Pro; Xaa at residues 1,2, 9 and 31 is Trp
        (D or L) or bromo-Trp (D or L)
<400> 271
Xaa Xaa Xaa Gly Xaa Cys Ser Asn Xaa Leu Gly Ser Cys Ser Thr Xaa
Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Xaa
                                25
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       272
<211>
       296
<212>
      DNA
<213>
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<220>
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<400> 272
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                                                                      48
   Met Gln Lys Leu Ile Ile Leu Leu Val Ala Ala Val Leu Met
tee ace cag gee etg att caa ggt ggt gga gga aaa ege caa cag gea
                                                                      96
Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala
                20
aag agc aag tat ttt tcc gaa aga aag gca cct gct aag cgt tgg ttt
                                                                     144
Lys Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe
gga cac gaa gaa tgc act tat tgg ttg ggg cct tgt gag gtg gac gac
                                                                     192
Gly His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp
acg tgt tgt tct gcc agt tgt gag tcc aag ttc tgc ggg ttg tgg
                                                                     237
Thr Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
tgatggacac tgaccacaag tcatcctaca tcgccactct cctgttcaqa gtcttcaaq
                                                                     296
<210>
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       78
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       PRT
<213> Conus radiatus
Met Gln Lys Leu Ile Ile Leu Leu Val Ala Val Leu Met Ser
Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala Lys
Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe Gly
His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp Thr
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50
                         55
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Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
<210>
       274
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       33
<212>
       PRT
<213>
       Conus radiatus
<220>
<221>
       PEPTIDE
<222>
       (1)..(33)
       Xaa at residues 5, 6, 15 and 26 is Glu or gamma-carboxy-Glu; Xaa
<223>
       at residue 13 is Pro or hydroxy-Pro; Xaa at residues 1, 10 and 33
        is Trp (D or L) or bromo-Trp (D or L);
<220>
<221>
       PEPTIDE
<222>
       (1)..(33)
<223>
       Xaa at residue 9 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
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Xaa Phe Gly His Xaa Xaa Cys Thr Xaa Xaa Leu Gly Xaa Cys Xaa Val
Asp Asp Thr Cys Cys Ser Ala Ser Cys Xaa Ser Lys Phe Cys Gly Leu
            20
Xaa
<210>
       275
<211>
       387
<212>
       DNA
<213>
       Conus spurius
<220>
<221>
      CDS
       (21)..(212)
<222>
<400> 275
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                                                                        53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
                                                           10
ctg ctg att cca tct gca cct agc act gat gcc cga ccg aag acc aaa
                                                                       101
Leu Leu Ile Pro Ser Ala Pro Ser Thr Asp Ala Arg Pro Lys Thr Lys
            15
gat gat gtg cgc ctg gca tct ttc cac ggt aag gca aag cga acc cta
                                                                       149
Asp Asp Val Arg Leu Ala Ser Phe His Gly Lys Ala Lys Arg Thr Leu
                             35
caa ata cct agg ggg aat atc cac tgt tgc aca aaa tat cag ccg tgc
                                                                       197
Gln Ile Pro Arg Gly Asn Ile His Cys Cys Thr Lys Tyr Gln Pro Cys
tgt tct tca cca tca taaagggaaa tgactttgat gagacccctg cgaactgtcc
                                                                       252
Cys Ser Ser Pro Ser
ctggatgtga aatttggaaa cgagactgtt cctttcgcgc gtgttcgtgg aatttcgaat
                                                                       312
ggtcgttaat aacacgctgc ctcttgcaaa ctacaatctc tctgtccttt atctgtggac
                                                                       372
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tggatgtcaa cactg
                                                                     387
<210> 276
<211> 64
<212> PRT
<213> Conus spurius
<400> 276
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Ile Pro Ser
Ala Pro Ser Thr Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Arg Leu
Ala Ser Phe His Gly Lys Ala Lys Arg Thr Leu Gln Ile Pro Arg Gly
Asn Ile His Cys Cys Thr Lys Tyr Gln Pro Cys Cys Ser Ser Pro Ser
<210> 277
<211> 17
<212> PRT
<213> Conus spurius
<220>
<221> PEPTIDE
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<223> Xaa at residues 11 and 16 is Pro or hydroxy-Pro; Xaa at residue 9
       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-
       phospho-Tyr
<400> 277
Gly Asn Ile His Cys Cys Thr Lys Xaa Gln Xaa Cys Cys Ser Ser Xaa
Ser
<210>
       278
<211>
       206
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       DNA
<213>
      Conus nobilis
<220>
<221> CDS
<222> (1)..(183)
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gca cca agc gtt gat gcc cga ccg aag acc aaa gat gat gtg ctc cgg
                                                                      96
Ala Pro Ser Val Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Leu Arg
gca tct ttc cgc gat aat gca aag agt acc cta caa aga ctt tgg aac
                                                                     144
Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Trp Asn
aaa cgc atc tgc tgc ccc ata att ctt tgg tgc tgt ggt taaccagcat
                                                                     193
Lys Arg Ile Cys Cys Pro Ile Ile Leu Trp Cys Cys Gly
                        55
gaagttccca gqa
                                                                     206
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<211> 61
<212> PRT
<213> Conus nobilis
<400> 279
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Ala Pro Ser Val Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Leu Arg
Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Trp Asn
Lys Arg Ile Cys Cys Pro Ile Ile Leu Trp Cys Cys Gly
<210> 280
<211> 10
<212> PRT
<213> Conus nobilis
<220>
<221> PEPTIDE
<222> (1)..(10)
<223> Xaa at residue 4 is Pro or hydroxy-Pro; Xaa at residue 8 is Trp (
       D or L) or bromo-Trp (D or L)
<400> 280
Ile Cys Cys Xaa Ile Ile Leu Xaa Cys Cys
<210> 281
<211> 205
<212> DNA
<213> Conus betulinus
<220>
<221> CDS
<222> (1)..(183)
<220>
<221> misc feature
<222> (1)..(205)
<223> n is unknown
<400> 281
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                                                                      48
Met Arg Cys Leu Pro Val Phe Ile Ile Leu Leu Val Leu Ile Ala Ser
                                    10
gca cct acc gtt gat gcc cga cca aag atc gaa gat gat gag tcc ctg
                                                                      96
Ala Pro Thr Val Asp Ala Arg Pro Lys Ile Glu Asp Asp Glu Ser Leu
gca tct ttc cat gnt cat naa cca cca tna nng ntn can ctt ttg aac
                                                                     144
Ala Ser Phe His Xaa His Xaa Pro Pro Xaa Xaa Xaa Thr Leu Leu Asn
                        40
aaa cgc aat tgc tgc cca gac tct cct ccg tgc tgt cat taaccagcat
                                                                    193
Lys Arg Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
gaaggttcag ga
                                                                    205
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<210>
           282
    <211>
           61
    <212>
           PRT
    <213> Conus betulinus
    <400> 282
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    Ala Ser Phe His Xaa His Xaa Pro Pro Xaa Xaa Xaa Thr Leu Leu Asn
    Lys Arg Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
ļ.
                             55
<210>
           283
    <211>
           11
412
    <212>
           PRT
<213> Conus betulinus
ij.
1120
    <220>
PEPTIDE
    <221>
    <222>
           (1)..(11)
Ħ?
           Xaa at residues 4, 7 and 8 is Pro or hydroxy-Pro
    <223>
f:21
121
ľij
    <400> 283
ig value
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1
    <210>
           284
N
    <211>
           569
    <212>
           DNA
    <213> Conus purpurascens
    <400> 284
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    tctatgacat ttcagttgtt agatcatcca gttccacaga tggaaagaca gagagatagt
    agettgeaag tggeagegtg ttgttaaega ceattegaea tteeatgaae aegtgtgaaa
                                                                           180
    ggagcagtct gctttccaaa tctgacatcc agggacagtt tgcaggggtc tcatccaaag
                                                                           240
                                                                           300
    tcatcttcct ttatcccaaa gtacagcacc gcatctgttt tggacagcaa ccgcgtttct
    tccaaaatct ttgtagggtt ccttttgcat tatcgtggaa agatgccagg ggcatatcat
                                                                           360
                                                                           420
    ctttggtctt cggatgagca tcaacgcaag gtgcagatgg aatcagcagc agaagaatga
    cgaagactgg cagacagcgc attctgcttg tagtcagctt ccgaattcca agccgaattc
                                                                           480
     tgcagatate cateacactg geggeegete gageatgeat etagagggee caattegeee
                                                                           540
                                                                           569
     tatagtgagt cgtatgacaa ttcactggc
     <210> 285
     <211> 63
     <212>
           PRT
     <213> Conus purpurascens
    Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Ile Pro Ser
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Ala Pro Cys Val 20	Asp Ala His Pr	ro Lys Th 25	r Lys Asp Asp !	Met Pro Leu 30
Ala Ser Phe His 35	Asp Asn Ala Ly		r Leu Gln Arg 45	Phe Trp Lys
Lys Arg Gly Cys 50	Cys Pro Lys G	ln Met Ar	g Cys Cys Thr 60	Leu Gly
<210> 286 <211> 12 <212> PRT <213> Conus pu	rpurascens			
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<400> 286 Gly Cys Cys Xaa 1	. Lys Gln Met A 5	arg Cys Cy 10		
<210> 287 <211> 221 <212> DNA <213> Conus am	miralis			
<220> <221> CDS <222> (21)(2	206)			
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ctg ctg act gca Leu Leu Thr Ala 15	a tct ggt gga (a Ser Gly Gly I	cct agc g Pro Ser V 20	tt gat gcc cga al Asp Ala Arg	ctg aag acc 101 Leu Lys Thr 25
aaa gat gat gto Lys Asp Asp Va 30	l Pro Leu Ser :	tct ttc c Ser Phe A 35	gc gat aat aca rg Asp Asn Thr 40	aag agt atc 149 Lys Ser Ile
cta caa aga ct Leu Gln Arg Le 45	t tgg aag cga u Trp Lys Arg 50	ggc aac t Gly Asn C	gc tgt gaa ttt ys Cys Glu Phe 55	tgg gag ttt 197 Trp Glu Phe
tgc tgt gat ta Cys Cys Asp 60	accagcat gaagg			221
<210> 288 <211> 62 <212> PRT <213> Conus a	mmiralis			
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Gly Gly Pro Se	er Val Asp Ala	Arg Leu 1	Lys Thr Lys Asp	Asp Val Pro

			20					25					30			
Leu S	Ser	Ser 35	Phe	Arg	Asp		Thr 40	Lys	Ser :	Ile	Leu	Gln 45	Arg	Leu	Trp	
	Arg 50	Gly	Asn	Cys		Glu 55	Phe	Trp	Glu		Cys 60	Cys	Asp			
<210: <211: <212: <213	> : > !		s amr	miral	is											
<220 <221 <222 <223	> 1 > > 2	PEPT: (1). Xaa aue 7	.(12) at re) esidu Trp	ies 5 (D or	and	l 8 i or b	s Gl promo	u or -Trp	gam (D	ma-c or I	arbo	ху-С	ilu;	Xaa at	resid
<400 Gly 1	> Asn	289 Cys	Cys	Xaa 5	Phe	Xaa	Xaa	Phe	Cys 10	Cys	Asp					
<210 <211 <212 <213	> :>	290 209 DNA Conu	s da	lli												
<220 <221 <222	.>	CDS (21)	(1	94)												
<400 ggaa)> igct	290 gac	taca	.agca	ga at Me 1	tg ca et Hi	ac to	gt ct ys Le	c co eu Pr 5	ca gt co Va	ic ti al Pl	cc gi ne Va	cc a	tt ct le Le 10	t ctg eu Leu)	53
ctg Leu	ctg Leu	act Thr	gca Ala 15	tct Ser	gga Gly	cct Pro	agc Ser	gtt Val 20	gat Asp	gcc Ala	caa Gln	ccg Pro	aag Lys 25	acc Thr	gaa Glu	101
gtt Val	gat Asp	gtg Val	ccc Pro	ctg Leu	tca Ser	tct Ser	ttc Phe 35	cgc Arg	gat Asp	aat Asn	gca Ala	aag Lys 40	cgt Arg	gcc Ala	cta Leu	149
caa Gln	Arc	a ctt g Leu	cco Pro	g cgt Arg	tgc Cys	tgt Cys 50	gaa Glu	tat Tyr	tgg Trp	aag Lys	ttg Leu 55	tgc Cys	tgt Cys	ggt Gly		194
taa	45 ccag	gcat	gaag	gg		50					33					209
<21: <21: <21: <21:	1> 2>	291 58 PRT Conu	ıs da	alli												
<40 Met 1	O> His	291 s Cys	s Lei	u Pro 5	Val	. Phe	Val	. Ile	Leu 10	Leu	. Leu	. Leu	Thr	Ala 15	Ser	
Gly	Pr	o Se:	r Va 20	l Asp	o Ala	Gln	Pro	Lys 25	Thr	Glu	Val	Asp	Val 30	. Pro	Leu	

Ser Ser Phe Arg Asp Asn Ala Lys Arg Ala Leu Gln Arg Leu Pro Arg 35 40 45

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Cys Cys Glu Tyr Trp Lys Leu Cys Cys Gly
       292
<210>
<211>
      9
<212> PRT
<213>
      Conus dalli
<220>
      PEPTIDE
<221>
<222>
       (1)..(9)
       Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is
<223>
        Trp (D or L) or bromo-Trp (D or L); Xaa at residue 4 is Tyr, 125
       I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 292
Cys Cys Xaa Xaa Xaa Lys Leu Cys Cys
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       293
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       218
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       DNA
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       CDS
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                       Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
                                                                       101
ctg cta act gca tct gca cct agc gtt gat gcc cga ccg aag gcc aaa
Leu Leu Thr Ala Ser Ala Pro Ser Val Asp Ala Arg Pro Lys Ala Lys
             15
                                 20
gat gat gtg ccc ctg gca tct ttc cgt gat aat gca aag agt acc cta
                                                                       149
Asp Asp Val Pro Leu Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
                                                                       197
caa aga ctt cag gac aaa cgc gtt tgc tgt ggc tat aag ttt ttt tgc
Gln Arg Leu Gln Asp Lys Arg Val Cys Cys Gly Tyr Lys Phe Phe Cys
                         50
                                                                       218
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Cys Arg
 60
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        294
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        61
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        PRT
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       Conus omaria
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 Lys Arg Val Cys Cys Gly Tyr Lys Phe Phe Cys Cys Arg
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       sulpho-Tyr or O-phospho-Tyr
<400> 295
Val Cys Cys Gly Xaa Lys Phe Phe Cys Cys Arg
                                    10
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      212
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<213> Conus aulicus
<220>
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                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg act gca tct gca cct aac gtt gat gcc caa ccg aag acc aaa
                                                                    101
Leu Leu Thr Ala Ser Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys
                                20
gat gat gtg ccc ctg gca tct ttg cac gat gat gca aag agt gca cta
                                                                      149
Asp Asp Val Pro Leu Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu
                            35
caa cat tgg aac caa cgc tgc tgc ccc atg atc tat tgg tgc tgt agt
                                                                      197
Gln His Trp Asn Gln Arg Cys Cys Pro Met Ile Tyr Trp Cys Cys Ser
                                                                      212
taaccagcat gaagg
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       297
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       59
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       PRT
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                                     10
 Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys Asp Asp Val Pro Leu
 Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu Gln His Trp Asn Gln
 Arg Cys Cys Pro Met Ile Tyr Trp Cys Cys Ser
                         55
     50
 <210> 298
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      (1)..(10)
      Xaa at residue 3 is Pro or hydroxy-Pro; Xaa at residue 7 is Trp (
<223>
       D or L) or bromo-Trp (D or L); Xaa at residue 6 is Tyr, 125I-Tyr,
        mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 298
Cys Cys Xaa Met Ile Xaa Xaa Cys Cys Ser
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       CDS
       (21)..(197)
<222>
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ggaagctgac tacaagcaga atg cac tgt ctc cca gtc ttc gtc att ctt ctg
                                                                       53
                      Met His Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg act gca tct gca cct aac gtt gat gcc caa ccg aag acc aaa
                                                                      101
Leu Leu Thr Ala Ser Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys
            15
gat gat gtg ccc ctg gca tct ttg cac gat gat gca aag agt gca cta
                                                                      149
Asp Asp Val Pro Leu Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu
        30
                            35
caa cat tgg aac caa cgc tgc tgc ccc gag atc tat tgg tgc tgt agt
                                                                      197
Gln His Trp Asn Gln Arg Cys Cys Pro Glu Ile Tyr Trp Cys Cys Ser
    45
                                                                      212
taaccagcat gaagg
<210>
       300
<211>
       59
<212>
       PRT
<213>
       Conus aulicus
<400> 300
Met His Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys Asp Asp Val Pro Leu
Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu Gln His Trp Asn Gln
Arg Cys Cys Pro Glu Ile Tyr Trp Cys Cys Ser
<210> 301
<211>
      10
<212> PRT
<213> Conus aulicus
<220>
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<221> PEPTIDE
<222>
      (1)..(10)
<223>
      Xaa at residue 4 is Glu or gamma-carboxy-Glu; Xaa at residue 3 is
       Pro or hydroxy-Pro; Xaa at residue 7 is Trp (D or L) or bromo-Tr
       p (D or L); Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-
       iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 301
Cys Cys Xaa Xaa Ile Xaa Xaa Cys Cys Ser
<210>
       302
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       215
<212>
      DNA
<213> Conus ammiralis
<220>
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      CDS
<222>
      (21)..(200)
<400> 302
                                                                       53
ggaagctgac tacaagcaga atg cgc tgt ctc cca gtc ttc gtc att ctt ctg
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg att gca tct gca cct agc gtt gat gcc caa ccg aag acc aaa
                                                                      101
Leu Leu Ile Ala Ser Ala Pro Ser Val Asp Ala Gln Pro Lys Thr Lys
gat gat gtg tcc ctg gca tct ttg cac gat aat ata aag agt act cta
                                                                      149
Asp Asp Val Ser Leu Ala Ser Leu His Asp Asn Ile Lys Ser Thr Leu
                            35
caa aca ctt tqq aac aaa cgc tgc tgc ccc cct gtg att tgg tgc tgt
                                                                      197
Gln Thr Leu Trp Asn Lys Arg Cys Cys Pro Pro Val Ile Trp Cys Cys
ggt taaccagcat aaagg
                                                                      215
Gly
60
<210> 303
<211>
      60
      PRT
<212>
<213>
      Conus ammiralis
<400> 303
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Ile Ala Ser
Ala Pro Ser Val Asp Ala Gln Pro Lys Thr Lys Asp Asp Val Ser Leu
            20
Ala Ser Leu His Asp Asn Ile Lys Ser Thr Leu Gln Thr Leu Trp Asn
Lys Arg Cys Cys Pro Pro Val Ile Trp Cys Cys Gly
    50
<210>
       304
<211> 9
<212> PRT
<213> Conus ammiralis
<220>
<221> PEPTIDE
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<222> (1)..(9) 
<223> Xaa at residues 3 and 4 is Pro or hydroxy-Pro; Xaa at residue 7 i
       s Trp (D or L) or bromo-Trp (D or L)
<400> 304
Cys Cys Xaa Xaa Val Ile Xaa Cys Cys
<210> 305
<211>
       215
      DNA
<212>
<213>
      Conus aulicus
<220>
<221>
      CDS
<222>
      (21)..(200)
<400> 305
ggaagctgac tacaagcaga atg cgc tgt ctc cca gtc ttc gtc att ctt ctg
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg act gca tct gga cct agc gtt gat gcc cga ccg aag acc aaa
                                                                       101
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Lys
gat gat gtg cct ctg tca tct ttc cgc gat aac gca aag agt atc cta
                                                                       149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Ile Leu
        30
caa aga cgt tgg aac aac tat tgc tgc acg aat gag ctt tgg tgc tgt
                                                                       197
Gln Arg Arg Trp Asn Asn Tyr Cys Cys Thr Asn Glu Leu Trp Cys Cys
                         50
ggt taaccagcat gaagg
                                                                       215
Gly
60
<210>
      306
<211>
       60
       PRT
<212>
<213> Conus aulicus
<400> 306
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Pro Leu
            20
Ser Ser Phe Arg Asp Asn Ala Lys Ser Ile Leu Gln Arg Arg Trp Asn
                             40
Asn Tyr Cys Cys Thr Asn Glu Leu Trp Cys Cys Gly
<210> 307
<211> 13
<212> PRT
<213> Conus aulicus
<220>
<221> PEPTIDE
<222>
       (1)..(13)
       Xaa at residue 9 is Glu or gamma-carboxy-Glu; Xaa at residues 1 a
```

<222>

(1)..(13)

nd 11 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 4 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phos pho-Tyr <400> 307 Xaa Asn Asn Xaa Cys Cys Thr Asn Xaa Leu Xaa Cys Cys <210> 308 <211> 218 <212> DNA <213> Conus dalli <220> <221> CDS <222> (21)..(203)<400> 308 ggaagctgac tacaagcaga atg cac tgt ctc cca gtc ttc gtc att ctt ctg Met His Cys Leu Pro Val Phe Val Ile Leu Leu 101 ctg ctg act gca tct gga cct agc gtt gat gcc cga ccg aag acc gaa Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Glu gat gat gtg ccc ctg tca tct ttc cgc gat aat aca aag agt acc cta 149 Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Thr Lys Ser Thr Leu caa aga ctt ttg aag cca gtc aac tgc tgt cct att gat caa tct tgc 197 Gln Arg Leu Leu Lys Pro Val Asn Cys Cys Pro Ile Asp Gln Ser Cys tgt tct taaccagcat gaagg 218 Cys Ser 60 <210> 309 <211> 61 <212> PRT <213> Conus dalli <400> 309 Met His Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Glu Asp Asp Val Pro Leu 2.0 Ser Ser Phe Arg Asp Asn Thr Lys Ser Thr Leu Gln Arg Leu Leu Lys Pro Val Asn Cys Cys Pro Ile Asp Gln Ser Cys Cys Ser <210> 310 <211> 13 <212> PRT <213> Conus dalli <220> <221> PEPTIDE

Xaa at residues 1 and 6 is Pro or hydroxy-Pro

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Xaa Val Asn Cys Cys Xaa Ile Asp Gln Ser Cys Cys Ser
<210> 311
<211> 239
<212> DNA
<213> Conus consors
<220>
<221> CDS
<222> (7)..(228)
<400> 311
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtc
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc atc cct tca gat cgt gca tct gaa ggc agg aat gcc gta gtc
                                                                       96
Val Ser Ile Pro Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Val Val
                    20
cac gag aga gcg cct gag ctg gtc gtt acg gcc acc acg act tgc tgt
                                                                      144
His Glu Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys
ggt tat gat ccg atg aca ata tgc cct cct tgc atg tgc act cat tcc
                                                                      192
Gly Tyr Asp Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser
            50
tgt cca cca aaa aga aaa cca ggc cgc aga aac gac tgatgctcga g
                                                                      239
Cys Pro Pro Lys Arg Lys Pro Gly Arg Arg Asn Asp
<210>
       312
       74
<211>
<212>
       PRT
<213> Conus consors
<400> 312
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Ile Pro Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Val His Glu
Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr
 Asp Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro
 Pro Lys Arg Lys Pro Gly Arg Arg Asn Asp
 <210> 313
 <211> 36
<212> PRT
 <213> Conus consors
 <220>
 <221>
       PEPTIDE
 <222>
       (1)..(36)
 <223> Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residues 2,
```

17, 22, 23, 31, 32 and 36 is Pro or hydroxy-Pro; Xaa at residue

15 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 313 Ala Xaa Xaa Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Xaa Asp Xaa Met Thr Ile Cys Xaa Xaa Cys Met Cys Thr His Ser Cys Xaa Xaa Lys Arg Lys Xaa 35 <210> 314 <211> 272 <212> DNA Conus aurisiacus <213> <220> <221> CDS (7)..(237)<222> <400> 314 ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtc 48 Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val 96 gtt tcc atc cct tca gat cgt gca tct gat ggc agg aat gcc gca gtc Val Ser Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Val 25 144 aac qaq aga caa tct tgg ctg gtc cct tcg aca atc acg act tgc tgt Asn Glu Arg Gln Ser Trp Leu Val Pro Ser Thr Ile Thr Thr Cys Cys 192 gga tat gat ccg ggg aca atg tgc cct cct tgc agg tgc aat aat acc Gly Tyr Asp Pro Gly Thr Met Cys Pro Pro Cys Arg Cys Asn Asn Thr 50 237 tqt aaa cca aaa aaa cca aaa cca gga aaa ggc cgc aga aac gac Cys Lys Pro Lys Lys Pro Lys Pro Gly Lys Gly Arg Arg Asn Asp 75 272 tgatgctcca ggaccctctg aaccacgacc tcgag <210> 315 77 <211> <212> PRT <213> Conus aurisiacus <400> 315 Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Val Asn Glu Arg Gln Ser Trp Leu Val Pro Ser Thr Ile Thr Thr Cys Cys Gly Tyr Asp Pro Gly Thr Met Cys Pro Pro Cys Arg. Cys Asn Asn Thr Cys Lys

Pro Lys Lys Pro Lys Pro Gly Lys Gly Arg Arg Asn Asp

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70
                                         75
65
<210>
      316
<211>
       39
<212>
      PRT
<213>
      Conus aurisiacus
<220>
      PEPTIDE
<221>
<222>
      (1)..(39)
       Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 6, 17, 22, 2
<223>
       3, 32, 35 and 37 is Pro or hydroxy-Pro; Xaa at residue 3 is Trp (
       D or L) or bromo-Trp (D or L); Xaa at residue 15 is Tyr, 125I-Tyr
       , mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 316
Xaa Ser Xaa Leu Val Xaa Ser Thr Ile Thr Thr Cys Cys Gly Xaa Asp
Xaa Gly Thr Met Cys Xaa Xaa Cys Arg Cys Asn Asn Thr Cys Lys Xaa
                                 25
Lys Lys Xaa Lys Xaa Gly Lys
<210> 317
<211>
       266
<212> DNA
<213>
      Conus consors
<220>
<221>
      CDS
<222>
      (7)..(231)
<400> 317
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtc
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                          48
                                                                          96
qtt tcc atc cct tca gat cgt gca tct gat ggc agg aat gcc gta gtc
Val Ser Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Val Val
cac gag aga gcg cct gag ctg gtc gtt acg gcc acc acg act tgc tgt
                                                                         144
His Glu Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys
                                                                         192
ggt tat gat eeg atg aca tgg tge eet tet tge atg tge act tat tee
Gly Tyr Asp Pro Met Thr Trp Cys Pro Ser Cys Met Cys Thr Tyr Ser
                                  55
                                                                         241
tgt ccc cac caa agg aaa aaa cca ggc cgc aga aac gac tgatgctcca
Cys Pro His Gln Arg Lys Lys Pro Gly Arg Arg Asn Asp
                                                                         266
ggaccctctg aaccacgacc tcgag
<210>
        318
<211>
        75
<212>
        PRT
<213> Conus consors
<400> 318
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
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Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Val His Glu
                                25
Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr
Asp Pro Met Thr Trp Cys Pro Ser Cys Met Cys Thr Tyr Ser Cys Pro
His Gln Arg Lys Lys Pro Gly Arg Arg Asn Asp
                    70
<210>
       319
<211>
      37
<212> PRT
<213> Conus consors
<220>
<221>
       PEPTIDE
<222>
       (1)..(37)
       Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residues 2,
<223>
       17, 22, 31 and 37 is Pro or hydroxy-Pro; Xaa at residue 20 is Trp
        (D or L) or bromo-Trp (D or L);
<220>
<221>
      PEPTIDE
       (1)..(37)
<222>
       Xaa at residues 15 and 28 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iod
<223>
       o-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 319
Ala Xaa Xaa Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Xaa Asp
Xaa Met Thr Xaa Cys Xaa Ser Cys Met Cys Thr Xaa Ser Cys Xaa His
                                 25
Gln Arg Lys Lys Xaa
        35
<210>
       320
<211>
       260
<212>
       DNA
<213>
       Conus magus
<220>
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       CDS
       (7)..(231)
<222>
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       misc_feature
<221>
       (1)..(260)
<222>
       n is unknown
<223>
<400> 320
                                                                        48
 ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace agt gte
        Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ser Val
                                                                        96
 gtt tee ate eet tea gat egt gea tet gat gge ggg aat gee gta gte
 Val Ser Ile Pro Ser Asp Arg Ala Ser Asp Gly Gly Asn Ala Val Val
                                         25
                     20
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cac gag aga gcg cct gag ctg gtc gtt acg gcc acc acg act tgc tgt

144

<221> CDS

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His Glu Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys
                                    40
                35
                                                                      192
ggt tat gat ccg atg aca ata tgc cct ccc tgc atg tgc act cat tcc
Gly Tyr Asp Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser
                                55
            50
                                                                      241
tgt cca cca aaa gga aaa cca ggc cgc agg aac gac tga tgtccaggac
Cys Pro Pro Lys Gly Lys Pro Gly Arg Arg Asn Asp
                                                                      260
ctctgaacca cgacncgag
<210>
       321
<211>
       74
<212>
       PRT
<213>
      Conus magus
<400> 321
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ser Val Val Ser
Ile Pro Ser Asp Arg Ala Ser Asp Gly Gly Asn Ala Val Wal His Glu
Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr
Asp Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro
Pro Lys Gly Lys Pro Gly Arg Arg Asn Asp
<210>
       322
<211>
       36
<212>
       PRT
<213>
       Conus magus
<220>
<221>
       PEPTIDE
<222>
       (1)..(36)
       Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residues 2,
<223>
        17, 22, 23, 31, 32 and 36 is Pro or hydroxy-Pro; Xaa at residue 1
        5 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O
        -phospho-Tyr
<400> 322
Ala Xaa Xaa Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Xaa Asp
Xaa Met Thr Ile Cys Xaa Xaa Cys Met Cys Thr His Ser Cys Xaa Xaa
Lys Gly Lys Xaa
         35
 <210>
        323
 <211>
        251
 <212>
       DNA
 <213> Conus aurisiacus
 <220>
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<210> 326

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<222> (23)..(202)
<400> 323
                                                                      52
qaattegeee ttgaggatee gt gtg gtt etg ggt eea gaa eet gat gge agg
                         Val Val Leu Gly Pro Glu Pro Asp Gly Arg
                                                                     100
aat gcc gca gtc aac gag aga cag aaa tgg ctg gtc cat tcg aaa atc
Asn Ala Ala Val Asn Glu Arg Gln Lys Trp Leu Val His Ser Lys Ile
                                                                      148
acq tat tgc tgt ggt tat aat aag atg gac atg tgc cct cct tgc atg
Thr Tyr Cys Cys Gly Tyr Asn Lys Met Asp Met Cys Pro Pro Cys Met
                                                                      196
tgc act tat tcc tgt ccc ccc cta aaa aaa aga cca ggc cgc aga
Cys Thr Tyr Ser Cys Pro Pro Leu Lys Lys Lys Arg Pro Gly Arg Arg
                            50
aac qac tgatgctcca ggaccctctg aaccacgacc tcgagcgaag ggcgaattc
                                                                      251
Asn Asp
    60
<210> 324
<211>
       60
<212>
      PRT
<213> Conus aurisiacus
<400> 324
Val Val Leu Gly Pro Glu Pro Asp Gly Arg Asn Ala Ala Val Asn Glu
Arg Gln Lys Trp Leu Val His Ser Lys Ile Thr Tyr Cys Cys Gly Tyr
Asn Lys Met Asp Met Cys Pro Pro Cys Met Cys Thr Tyr Ser Cys Pro
                            40
Pro Leu Lys Lys Lys Arg Pro Gly Arg Arg Asn Asp
<210> 325
       38
<211>
       PRT
<212>
<213>
       Conus aurisiacus
<220>
<221>
       PEPTIDE
<222>
       (1)..(38)
       Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 22, 23, 31,
       32 and 38 is Pro or hydroxy-Pro; Xaa at residue 3 is Trp (D or L)
        or bromo-Trp (D or L); Xaa at residues 11, 15 and 28 is Tyr, 12
        5I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 325
Xaa Lys Xaa Leu Val His Ser Lys Ile Thr Xaa Cys Cys Gly Xaa Asn
Lys Met Asp Met Cys Xaa Xaa Cys Met Cys Thr Xaa Ser Cys Xaa Xaa
             20
 Leu Lys Lys Lys Arg Xaa
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<211> 212
<212> DNA
<213> Conus aurisiacus
<220>
<221> CDS
      (23)..(163)
<222>
<400> 326
                                                                       52
gaattcgccc ttgaggatcc gt gtg gtt ctg ggt cca gca ttt gat ggc agg
                         Val Val Leu Gly Pro Ala Phe Asp Gly Arg
aat gcc gca gtc aac gag aga gcg cct tgg acg gtc gtt acg gcc acc
                                                                      100
Asn Ala Ala Val Asn Glu Arg Ala Pro Trp Thr Val Val Thr Ala Thr
                                    2.0
                                                                      148
acg aat tgc tgc ggt att acc ggg cca ggc tgc ctt cct tgc cgt tgt
Thr Asn Cys Cys Gly Ile Thr Gly Pro Gly Cys Leu Pro Cys Arg Cys
                                35
                                                                      203
act caa aca tgt ggc tgatgctcca ggaccctctg aaccacgacc tcgagcgaag
Thr Gln Thr Cys Gly
                                                                      212
ggcgaattc
<210> 327
<211> 47
<212> PRT
<213> Conus aurisiacus
<400> 327
Val Val Leu Gly Pro Ala Phe Asp Gly Arg Asn Ala Ala Val Asn Glu
Arg Ala Pro Trp Thr Val Val Thr Ala Thr Thr Asn Cys Cys Gly Ile
Thr Gly Pro Gly Cys Leu Pro Cys Arg Cys Thr Gln Thr Cys Gly
                             40
<210>
      328
<211>
       29
<212> PRT
<213> Conus aurisiacus
<220>
<221> PEPTIDE
<222>
       (1)..(29)
       Xaa at residues 2, 18 and 22 is Pro or hydroxy-Pro; Xaa at residu
       e 3 is Trp (D or L) or bromo-Trp (D or L)
<400> 328
Ala Xaa Xaa Thr Val Val Thr Ala Thr Thr Asn Cys Cys Gly Ile Thr
Gly Xaa Gly Cys Leu Xaa Cys Arg Cys Thr Gln Thr Cys
             20
                                 25
<210> 329
<211> 218
<212> DNA
<213> Conus marmoreus
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<220>
<221> CDS
      (21)..(203)
<400> 329
ggaagctgac tacaagcaga atg cgc tgt ctc cca gtc ttg atc att ctt ctg
                                                                      53
                      Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu
                                                                     101
ctg ctg act gca tct gca cct ggc gtt gtt gtc cta ccg aag acc gaa
Leu Leu Thr Ala Ser Ala Pro Gly Val Val Leu Pro Lys Thr Glu
                                20
gat gat gtg ccc atg tca tct gtc tac ggt aat gga aag agt atc cta
                                                                     149
Asp Asp Val Pro Met Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile Leu
                                                                     197
cga ggg att ctg agg aac ggt gtt tgc tgt ggc tat aag ttg tgc ctt
Arg Gly Ile Leu Arg Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu
                        50
                                                                     218
cca tgt taaccagcat gaagg
Pro Cys
60
<210> 330
<211> 61
      PRT
<212>
<213> Conus marmoreus
<400> 330
Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu Leu Thr Ala Ser
Ala Pro Gly Val Val Leu Pro Lys Thr Glu Asp Asp Val Pro Met
Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile Leu Arg Gly Ile Leu Arg
Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu Pro Cys
<210> 331
<211> 13
<212> PRT
<213> Conus marmoreus
<220>
<221>
      PEPTIDE
<222>
       (1)..(13)
       Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 7 is Tyr,
<223>
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
<400> 331
Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys Leu Xaa Cys
<210>
       332
<211>
      238
<213> Conus pennaceus
<220>
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<221> CDS
<222>
      (28)..(219)
<400> 332
                                                                       54
ggaattegga agetgactae aageaga atg ege tgt ete eea gte tte gte att
                              Met Arg Cys Leu Pro Val Phe Val Ile
                                                                      102
ctt ctg ctg ctg act gca tct gca cct agc gtt gat gcc aaa gtt cat
Leu Leu Leu Leu Thr Ala Ser Ala Pro Ser Val Asp Ala Lys Val His
                                                             25
                                                                      150
ctq aaq acc aaa ggt gat ggg ccc ctg tca tct ttc cga gat aat gca
Leu Lys Thr Lys Gly Asp Gly Pro Leu Ser Ser Phe Arg Asp Asn Ala
aag agt acc cta caa aga ctt cag gac aaa agc act tgc tgt ggc ttt
                                                                      198
Lys Ser Thr Leu Gln Arg Leu Gln Asp Lys Ser Thr Cys Cys Gly Phe
                                50
                                                                      238
aag atg tgt atc cct tgt agt taaccagcat gaaggatcc
Lys Met Cys Ile Pro Cys Ser
        60
       333
<210>
<211>
       64
<212>
       PRT
<213>
       Conus pennaceus
<400> 333
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
                                 25
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Ser
<210>
       334
<211>
       13
       PRT
<212>
<213> Conus pennaceus
<220>
<221>
       PEPTIDE
<222>
       (1)..(13)
       Xaa at residue 11 is Pro or hydroxy-Pro
 Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Xaa Cys Ser
 <210>
        335
 <211>
        231
 <212>
       DNA
        Conus pennaceus
 <220>
 <221> CDS
 <222> (27)..(212)
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gaattoggaa gotgactaca agoaga atg ogt tgt oto oca gto tto gto att
                                                                      53
                             Met Arg Cys Leu Pro Val Phe Val Ile
ctt ctg ctg ctg act gca tct gga cct agc gtt gat gcc cga ctg aag
                                                                     101
Leu Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Leu Lys
acc aaa gat gat gtg ccc ctg tca tct ttc cga gat aat gca aag agt
                                                                     149
Thr Lys Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser
                30
acc cta caa aga ctt cag gac aaa cgc ctt tgc tgt ggc ttt tgg atg
                                                                     197
Thr Leu Gln Arg Leu Gln Asp Lys Arg Leu Cys Cys Gly Phe Trp Met
                                50
                                                                     231
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Cys Ile Pro Cys Asn
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<211> 62
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<213> Conus pennaceus
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Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Arg Leu Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
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<210> 337
<211> 12
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 <213> Conus pennaceus
<220>
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<221>
 <222>
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 <223> Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 6 is Trp
        (D or L) or bromo-Trp (D or L)
 <400> 337
 Leu Cys Cys Gly Phe Xaa Met Cys Ile Xaa Cys Asn
 <210> 338
 <211>
       244
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       DNA
 <213>
       Conus pennaceus
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 <222>
        (40)..(225)
 <220>
 <221> misc feature
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<213> Conus episcopatus

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<222> (1)..(244)
<223> n is unknown
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gaattotoco ttggaattot gaagotgact acaancaga atg cgt tgt ctc cca
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                                           Met Arg Cys Leu Pro
ctc ttc gtc att ctt ctg ctg ctg act gca tct gga cct act gtt gat
                                                                     102
Leu Phe Val Ile Leu Leu Leu Thr Ala Ser Gly Pro Thr Val Asp
                                                        20
                10
                                                                      150
gcc cga ctg aag acc aaa gat gat gtg ccc ctg tca tct ttc cga gat
Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu Ser Ser Phe Arg Asp
            25
                                                                      198
aat gca aag agt acc cta caa aga ctt cag gac aaa agc act tgc tgt
Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp Lys Ser Thr Cys Cys
                                                50
        40
                                                                      244
ggc ttt aag atg tgt att cct tgt ggt taaccagcat gaaggatcc
Gly Phe Lys Met Cys Ile Pro Cys Gly
    55
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       339
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       62
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       Conus pennaceus
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Met Arg Cys Leu Pro Leu Phe Val Ile Leu Leu Leu Thr Ala Ser
                                     10
Gly Pro Thr Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Gly
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 <222>
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       Xaa at residue 11 is Pro or hydroxy-Pro
 <223>
 <400> 340
 Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Xaa Cys
 <210>
        341
 <211> 250
 <212> DNA
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                                           Met Arg Cys Leu Pro
gtc ttc gtc att ctt ctg ctg ctg act gca tct gga cct ant gtt gat
                                                                      102
Val Phe Val Ile Leu Leu Leu Thr Ala Ser Gly Pro Xaa Val Asp
                10
                                    15
                                                                      150
gcc aaa gtt cat ctg aag acc aaa ggt gat ggg ccc ctg tca tct ttc
Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly Pro Leu Ser Ser Phe
                                30
                                                                      198
cqa qat aat gca aag agt acc cta caa aga ctt cag gac aaa agc act
Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp Lys Ser Thr
tgc tgt ggc tat agg atg tgt gtt cct tgt ggt taaccagcat gaaggatcc
                                                                      250
Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
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       PRT
<213>
      Conus episcopatus
<400> 342
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Xaa Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
                                25
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
Gln Asp Lys Ser Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
      343
<210>
<211>
       12
<212>
       PRT
<213>
      Conus episcopatus
<220>
<221>
       PEPTIDE
<222>
       Xaa at residue 11 is Pro or hydroxy-Pro; Xaa at residue 6 is Tyr
       , 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 343
Ser Thr Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
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       827
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       DNA
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       Conus marmoreus
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      (82)..(264)
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                                                                       60
tggaaactga caacaggcag a atg cgc tgt ctc cca gtc ttg atc att ctt
                                                                      111
                        Met Arg Cys Leu Pro Val Leu Ile Ile Leu
ctg ctg ctg act gca tct gca cct ggc gtt gtt gtc cta ccg aag acc
                                                                      159
Leu Leu Thr Ala Ser Ala Pro Gly Val Val Leu Pro Lys Thr
                                     20
                                                         25
                                                                      207
gaa gat gat gtg ccc atg tca tct gtc tac ggt aat gga aag agt atc
Glu Asp Asp Val Pro Met Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile
            30
                                                                      255
cta cga gga att ctg agg aac ggt gtt tgc tgt ggc tat aag ttg tgc
Leu Arg Gly Ile Leu Arg Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys
                             50
                                                                      304
cat cca tgt taaccagcat gaagggaaat gactttggat gagacccctg
His Pro Cys
    60
                                                                      364
cgaactgtcc ctggatgtga aatttggaaa gcagactgtt cctttcgcac gtattcgtgg
                                                                      424
aatttcgaat ggtcgtaaac aacacgctgc cacttgcagg ctactatctc tctgtccttt
catctgtgga aatggatgat ctaacaactg aaatatcaga aatttttcaa tggctataca
                                                                      484
ctatgaccat gtagtcagta attatatcat ttggaccttt tgaaatattt ttcaatatgt
                                                                      544
                                                                      604
aaagtttttg caccctggaa aggtcttttg gagttaaata ttttagtatg ttatgttttg
catacaagtt atagaatgct gtctttcttt ttgttcccac atcaatggtg ggggcagaaa
                                                                      664
                                                                      724
ttatttgttt tggtcaatgt aattatgacc tgcatttagt gctatagtga ttgcattttc
                                                                      784
agcgtggaat gtttaatctg caaacagaaa gtggttgatc gactaataaa gatttgcatg
                                                                      827
gcacaaaaaa aaaaaaaaaa agtactctgc gttgttactc gag
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       PRT
<213>
       Conus marmoreus
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Ala Pro Gly Val Val Leu Pro Lys Thr Glu Asp Asp Val Pro Met
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 Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile Leu Arg Gly Ile Leu Arg
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Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys

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55
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<211>
      13
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<213> Conus marmoreus
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<221>
      PEPTIDE
<222>
       (1)..(13)
       Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 7 is Tyr,
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 346
Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
<210>
       347
<211>
       12
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       PRT
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       Conus marmoreus
<220>
<221>
       PEPTIDE
<222>
       (1)..(12)
       Xaa at residue 11 is Pro or hydroxy-Pro; Xaa at residue 6 is Tyr,
<223>
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
<400>
       347
Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
<210>
       348
<211>
       202
<212>
       DNA
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       Conus bandanus
<220>
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       CDS
<222>
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                                                                        48
atg ege tgt etc eca gte ttg ate att ett etg etg etg act gea tet
Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu Leu Thr Ala Ser
                                                                        96
gca cct ggc gtt gat gtc cta ccg aag acc gaa gat gat gtg ccc ctg
Ala Pro Gly Val Asp Val Leu Pro Lys Thr Glu Asp Asp Val Pro Leu
                                                                       144
tca tct qtc tac gat aat aca aag agt atc cta cga gga ctt ctg gac
Ser Ser Val Tyr Asp Asn Thr Lys Ser Ile Leu Arg Gly Leu Leu Asp
                                                                       193
aaa cgt gct tgc tgt ggc tac aag ctt tgc tca cca tgt taaccagcat
Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
                         55
                                                                       202
gaaggatcc
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<211>
       61
<212>
       PRT
<213> Conus bandanus
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Ala Pro Gly Val Asp Val Leu Pro Lys Thr Glu Asp Asp Val Pro Leu
Ser Ser Val Tyr Asp Asn Thr Lys Ser Ile Leu Arg Gly Leu Leu Asp
Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys 50 60
<210> 350
<211> 11
<212> PRT
<213> Conus bandanus
<220>
<221>
      PEPTIDE
<222>
       (1)..(11)
       Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 5 is Tyr,
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 350
Ala Cys Cys Gly Xaa Lys Leu Cys Ser Xaa Cys
                5
                                     10
<210>
      351
<211>
      221
<212>
      DNA
<213> Conus aulicus
<220>
<221>
       CDS
<222>
       (21)..(206)
<400> 351
ggaagctgac tacaagcaga atg cgc tgt ctc cca gtc ttc gtc att ctt ctg
                                                                       53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
                                                                      101
ctg ctg act gca tct gga cct agc gtt gat gcc cga ctg aag acc aaa
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys
                                                                      149
gat gat gtg ccc ctg tca tct ttc cga gat aat gca aag agt acc cta
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
                                                                      197
caa aga cat cag gac aaa agc gtt tgc tgt ggc tat aag ctg tgt ttt
Gln Arg His Gln Asp Lys Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe
                                                                      221
cct tgt ggt taaccagcat gaagg
Pro Cys Gly
<210> 352
 <211> 62
 <212> PRT
 <213> Conus aulicus
 <400> 352
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<213> Conus textile

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Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg His Gln Asp
Lys Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe Pro Cys Gly
<210>
       353
<211>
       12
       PRT
<212>
<213>
      Conus aulicus
<220>
<221>
      PEPTIDE
<222>
       (1)..(12)
       Xaa at residue 11 is Pro or hydroxy-Pro; Xaa at residue 6 is Tyr,
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 353
Ser Val Cys Cys Gly Xaa Lys Leu Cys Phe Xaa Cys
<210>
       354
<211>
       312
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       DNA
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                                                                        47
   Gly Ser Asn Gly Val Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
gqt taaccaqcat gaagggaaat gactttggat gagacccctg cgaactgtcc
                                                                       100
Gly
ctggatgtga gatttggaaa gcagactgtt cattttgcac gtgttcgtgg aatttcgaat
                                                                       160
ggtcgttaac aacacgctgc cacttgcaag ctactatctc tctgtccttt tatctgtgga
                                                                       220
                                                                       280
actgtatgat ctaacaactg aaatatcata nanatttttc aatgggtatn cactatgcat
                                                                       312
atgatcatgt agggttcaag gggtcaagat nc
<210> 355
<211>
       16
<212> PRT
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<400> 355
Gly Ser Asn Gly Val Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
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<210>
      356
<211> 13
<212> PRT
<213> Conus textile
<220>
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      PEPTIDE
<222>
       (1)..(13)
      Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 7 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 356
Asn Gly Val Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
<210>
       357
<211>
      205
<212>
      DNA
      Conus textile
<213>
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<221>
      CDS
<222>
      (1)..(186)
<400> 357
atg cac tgt ctc cca atc ttc gtc att ctt ctg ctg ctg act gca tct
                                                                      48
Met His Cys Leu Pro Ile Phe Val Ile Leu Leu Leu Thr Ala Ser
                                    10
gga cct agc gtt gat gcc caa ctg aag acc aaa gat gat gtg ccc ctg
                                                                      96
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
            20
                                25
                                                                     144
tca tct ttc cga gat cat gca aag agt acc cta cga aga ctt cag gac
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
aaa cag act tgc tgt ggc tat agg atg tgt gtt cct tgt ggt
                                                                     186
Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
    50
                        55
taaccagcat gaaggatcc
                                                                     205
<210>
       358
<211>
       62
<212>
       PRT
<213>
      Conus textile
<400> 358
Met His Cys Leu Pro Ile Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
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<210>
      359
<211>
      12
<212>
      PRT
<213>
      Conus textile
<220>
<221>
      PEPTIDE
<222>
      (1)..(12)
<223>
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 11 is Pro or
       hydroxy-Pro; Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di
       -iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 359
Xaa Thr Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
<210>
       360
<211>
       221
<212>
       DNA
<213>
      Conus ammiralis
<220>
<221>
      CDS
<222>
       (21)..(206)
<400> 360
agaagctgac tacaagcaga atg cac tac ctc cca gtc ttc gtc att ctt ctg
                                                                       53
                      Met His Tyr Leu Pro Val Phe Val Ile Leu Leu
                      1
ctg ctg act gca tct gga cct agc gtt gat gcc caa ctg aag acc aaa
                                                                      101
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys
            15
                                20
gat gat gtg ccc ctg tca tct ttc cga gat aat gca aag agt acc cta
                                                                      149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
        30
cga aga ctc cag tac aaa cag gct tgc tgt ggc ttt aag atg tgt gtt
                                                                      197
Arg Arg Leu Gln Tyr Lys Gln Ala Cys Cys Gly Phe Lys Met Cys Val
                                                                      221
cct tgt ggt taaccagcat gaagg
Pro Cys Gly
60
<210>
       361
<211>
       62
<212>
       PRT
<213>
      Conus ammiralis
<400> 361
Met His Tyr Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Arg Arg Leu Gln Tyr
Lys Gln Ala Cys Cys Gly Phe Lys Met Cys Val Pro Cys Gly
                         55
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      362
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      12
<212>
      PRT
<213> Conus ammiralis
<220>
<221>
      PEPTIDE
<222>
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 11 is Pro or
      hydroxy-Pro
<400> 362
Xaa Ala Cys Cys Gly Phe Lys Met Cys Val Xaa Cys
<210>
      363
<211>
      211
<212>
      DNA
<213>
     Conus pennaceus
<220>
<221>
      CDS
<222>
      (1)..(192)
<400> 363
atg ege tgt etc eea gte tte gte att ett etg etg etg act gea tet
                                                                       48
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
gca cct agc gtt gat gcc aaa gtt cat ctg aag acc aaa ggt gat ggg
                                                                       96
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
            20
                                25
ccc ctg tca tct ttc cga gat aat gca aag agt acc cta caa aga ctt
                                                                      144
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
        35
cag gac aaa agc act tgc tgt ggc ttt aag atg tgt att cct tgt cgt
                                                                      192
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
taaccagcat gaaggatcc
                                                                      211
<210>
      364
<211>
      64
<212>
      PRT
      Conus pennaceus
<213>
<400> 364
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
                                25
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
                                             60
<210>
       365
<211>
       1.3
<212>
       PRT
<213> Conus pennaceus
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<221>
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<222>
       (1)..(13)
       Xaa at residue 13 is Pro or hydroxy-Pro
<400>
       365
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Xaa Cys Arg
<210>
       366
<211>
       304
<212>
       DNA
<213>
       Conus pennaceus
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      CDS
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       n is unknown
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                                                                       100
aat taaccagcat gaagggaaat gactttggat aagacccctg cgaactgtcc
Asn
                                                                       160
ttqqatqtqa qatttqqaaa qcaqactqtt ccttttqcac gtqttcgtgg aatttcgaat
ggtcgttaac aacacgctgc cacttgcaag ctactatctc tctgtccttt catctgtgga
                                                                       220
actgtatgat ctaacaactg aaatatcata gaaatttttc aatgggtata cactatgcat
                                                                       280
                                                                       304
atgaccatgt angggtcaac agnc
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       367
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       16
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       PRT
<213>
       Conus pennaceus
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Gly Ser Asn Gly Val Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
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       368
<211>
       14
<212>
       PRT
<213>
       Conus pennaceus
<220>
<221>
       PEPTIDE
<222>
        (1)..(14)
       Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 8 is Trp
        (D or L) or bromo-Trp (D or L)
<400> 368
Asn Gly Val Cys Cys Gly Phe Xaa Met Cys Ile Xaa Cys Asn
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<210>
      369
<211>
       218
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      DNA
<213>
      Conus omaria
<220>
<221>
      CDS
<222>
      (21)..(203)
<400> 369
ggaagctgac tacaagcaga atg cgc tgt ctc cca gtc ttc gtc att ctt ctg
                                                                       53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
                      7
                                                           10
ctg ctg act gca tct gca cct agc gtt gat gcc cga ccg aag gcc aaa
                                                                      101
Leu Leu Thr Ala Ser Ala Pro Ser Val Asp Ala Arg Pro Lys Ala Lys
            15
                                 20
gat gat gtg ccc ctg tca tct ttc cgt gat aat gca aag agt acc cta
                                                                      149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
        30
                             35
caa aga ctt cag gac aaa gac gtt tgc tgt tac gtt aga atg tgt cct
                                                                      197
Gln Arg Leu Gln Asp Lys Asp Val Cys Cys Tyr Val Arg Met Cys Pro
                        50
                                                                       218
tgt cgt taaccagcat gaagg
Cys Arg
60
<210>
       370
<211>
       61
<212>
       PRT
<213>
      Conus omaria
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
Ala Pro Ser Val Asp Ala Arg Pro Lys Ala Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Asp Val Cys Cys Tyr Val Arg Met Cys Pro Cys Arg
<210>
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       12
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<213>
       Conus omaria
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<222>
       (1)..(12)
       Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 5 is Tyr,
<223>
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400>
Asp Val Cys Cys Xaa Val Arg Met Cys Xaa Cys Arg
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<210> 372

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<211>
       84
<212>
       PRT
<213>
       Conus radiatus
<220>
<221>
       PEPTIDE
<222>
       (1)..(84)
<223>
       Xaa at residues 27, 32, 38, 39 and 41 is Glu or gamma-carboxy-Glu
       ; Xaa at residues 2, 5, 17, 23, 43, 45 and 58 is Pro or hydroxy-P
       ro; Xaa at residue 8 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr,
        O-sulpho-Tyr or O-phospho-Tyr
<400> 372
His Xaa Thr Lys Xaa Cys Met Xaa Cys Ser Phe Gly Gln Cys Val Gly
Xaa His Ile Cys Cys Gly Xaa Thr Gly Cys Xaa Met Gly Thr Ala Xaa
Ala Asn Met Cys Ser Xaa Xaa Asp Xaa Asp Xaa Ile Xaa Cys Gln Val
Phe Gly Ser Asp Cys Ala Leu Asn Asn Xaa Asp Asn Ile His Gly His
Cys Val Ala Asp Gly Ile Cys Cys Val Asp Asp Thr Cys Thr Thr His
Leu Gly Cys Leu
<210>
      373
<211>
      218
<212>
      DNA
<213>
      Conus tessulatus
<220>
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      CDS
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       (7)..(174)
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       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc agt gca gat cgt gcc aac gtc aaa gcg tct gac ctg atc
                                                                       96
Val Ser Phe Ser Ala Asp Arg Ala Asn Val Lys Ala Ser Asp Leu Ile
gcc cag gcc acc aga gac ggc tgt cca cca cat ccc gtt cct ggc atg
                                                                      144
Ala Gln Ala Thr Arg Asp Gly Cys Pro Pro His Pro Val Pro Gly Met
                35
cat aag tgc atg tgt act aat aca tgt ggt tgaagacgct gatgctccag
                                                                      194
His Lys Cys Met Cys Thr Asn Thr Cys Gly
gaccctctga accacgacct cgag
                                                                      218
<210>
       374
<211>
       56
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<213>
      Conus tessulatus
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
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5
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1
Phe Ser Ala Asp Arg Ala Asn Val Lys Ala Ser Asp Leu Ile Ala Gln
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Ala Thr Arg Asp Gly Cys Pro Pro His Pro Val Pro Gly Met His Lys
Cys Met Cys Thr Asn Thr Cys Gly
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      20
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<213> Conus tessulatus
<220>
      PEPTIDE
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       (1)..(20)
      Xaa at residues 4, 5, 7 and 9 is Pro or hydroxy-Pro
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Asp Gly Cys Xaa Xaa His Xaa Val Xaa Gly Met His Lys Cys Met Cys
Thr Asn Thr Cys
<210>
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<211>
      536
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      DNA
<213>
      Conus geographus
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      (400)..(510)
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      misc_feature
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       (1)...(536)
<223>
       n is unknown
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anntagantn tgtcgtanta nnggatcnta antantgnnt cganatgatn angagtgata
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aatgannggt gcactnntan ttangntnnt angatnnnna tattatnnta nnnnntaana
natatnggtn nggannaaga agantaaaag tanngnttng tgaaanaang annnnatgtt
                                                                   180
nnanntcata acnnnaatgt aaataatana cgnnccagtg tgaaannntn tcnnnnataa
                                                                   240
                                                                   300
aaattctntn tntnaangtn nntgtntgng tgtgtgtgtg tgtgtgtgt tgtgngtgtg
                                                                   360
tgtgtgtgt tgtgtgttn tgtggttctg ggtccagca tct gat gnc agg gat
                                                                   414
                                          Ser Asp Xaa Arg Asp
gac aca gcc aaa gac gaa ggg tct nac atg gac aaa ttg gtc gag aaa
                                                                   462
Asp Thr Ala Lys Asp Glu Gly Ser Xaa Met Asp Lys Leu Val Glu Lys
                                                                   510
aaa gaa tgt tgc cat cct gcc tgt ggc aaa cac tac agt tgt gga cgc
Lys Glu Cys Cys His Pro Ala Cys Gly Lys His Tyr Ser Cys Gly Arg
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Lys Leu Val Glu Lys Lys Glu Cys Cys His Pro Ala Cys Gly Lys His 20 25 30	
Tyr Ser Cys Gly Arg 35	
<210> 378 <211> 13 <212> PRT <213> Conus geographus	
<pre><220> <221> PEPTIDE <222> (1)(13) <223> Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residue</pre>	5 is
<400> 378 Xaa Cys Cys His Xaa Ala Cys Gly Lys His Xaa Ser Cys 1 5 10	
<210> 379 <211> 217 <212> DNA <213> Conus geographus	
<220> <221> CDS <222> (7)(183)	
<pre><400> 379 ggatcc atg ttc acc gtg ttt ctg ttg gtg gtc ttg gca acc act gtc</pre>	48
gtt tcc ttc cct tca gaa cgt gca tct gat ggc agg gat gac aca gcc Val Ser Phe Pro Ser Glu Arg Ala Ser Asp Gly Arg Asp Asp Thr Ala 15 20 25 30	96
aaa gac gaa ggg tct gac atg gag aaa ttg gtc gag aaa aaa gaa tgt Lys Asp Glu Gly Ser Asp Met Glu Lys Leu Val Glu Lys Lys Glu Cys 35 40 45	144
tgc aat cet gcc tgt ggc aga cac ttc agt tgt gga egc tgatgctcca Cys Asn Pro Ala Cys Gly Arg His Phe Ser Cys Gly Arg 50 55	193
ggaccetetg aaccaegact egag	217
<210> 380 <211> 59 <212> PRT	

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Phe Pro Ser Glu Arg Ala Ser Asp Gly Arg Asp Asp Thr Ala Lys Asp
Glu Gly Ser Asp Met Glu Lys Leu Val Glu Lys Lys Glu Cys Cys Asn
Pro Ala Cys Gly Arg His Phe Ser Cys Gly Arg
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      381
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      13
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      PRT
<213> Conus geographus
<220>
<221>
       PEPTIDE
<222>
       (1)..(13)
       Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is
        Pro or hydroxy-Pro
<400> 381
Xaa Cys Cys Asn Xaa Ala Cys Gly Arg His Phe Ser Cys
                                     10
<210>
       382
<211>
      224
<212>
      DNA
<213> Conus striatus
<220>
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       CDS
<222>
       (7)..(207)
                                                                       48
qqatcc atq ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtc
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                       96
gtt tcc ttc act tca gat cgt gca tct gat ggc agg gat gac gaa gcc
Val Ser Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala
15
                                                                      144
aaa gac gaa agg tct gac atg cac gaa tcg gac cgg aaa gga cgc gca
Lys Asp Glu Arg Ser Asp Met His Glu Ser Asp Arg Lys Gly Arg Ala
                                     40
                                                                      192
tac tgt tgc cat cct gcc tgt ggc cca aac tat agt tgt ggc acc tca
Tyr Cys Cys His Pro Ala Cys Gly Pro Asn Tyr Ser Cys Gly Thr Ser
                                                                      224
tgc tcc agg acc ctc tgaaccacga cctcgag
Cys Ser Arg Thr Leu
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<210> 383
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 <212>
       PRT
 <213> Conus striatus
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Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala Lys Asp
Glu Arg Ser Asp Met His Glu Ser Asp Arg Lys Gly Arg Ala Tyr Cys
Cys His Pro Ala Cys Gly Pro Asn Tyr Ser Cys Gly Thr Ser Cys Ser
                        55
                                             60
Arg Thr Leu
65
<210>
      384
<211>
      22
<212>
       PRT
<213>
      Conus striatus
<220>
      PEPTIDE
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<222>
       (1)..(22)
       Xaa at residues 6 and 10 is Pro or hydroxy-Pro; Xaa at residues 2
        and 12 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Ty
       r or O-phospho-Tyr
<400> 384
Ala Xaa Cys Cys His Xaa Ala Cys Gly Xaa Asn Xaa Ser Cys Gly Thr
                                     10
Ser Cys Ser Arg Thr Leu
            20
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       385
<211>
       224
<212>
       DNA
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      Conus striatus
<220>
<221>
       CDS
<222>
       (7)..(189)
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                                                                        48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc act tca gat cgt gca tct gat ggc agg gat gac gaa gcc
                                                                        96
Val Ser Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala
                     20
aaa gac gaa agg tct gac atg cac gaa tcg gac cgg aaa gga cgc gca
                                                                      144
Lys Asp Glu Arg Ser Asp Met His Glu Ser Asp Arg Lys Gly Arg Ala
tac tgt tgc cat cct gtc tgt ggc aaa aac ttt gat tgt gga cgc
                                                                      189
Tyr Cys Cys His Pro Val Cys Gly Lys Asn Phe Asp Cys Gly Arg
            50
                                 55
                                                     60
tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                       224
<210>
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<213> Conus striatus
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Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
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Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala Lys Asp
Glu Arg Ser Asp Met His Glu Ser Asp Arg Lys Gly Arg Ala Tyr Cys
Cys His Pro Val Cys Gly Lys Asn Phe Asp Cys Gly Arg
                        55
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      14
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      PRT
      Conus striatus
<213>
<220>
<221>
       PEPTIDE
<222>
       (1)..(14)
       Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 2 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-T
<400> 387
Ala Xaa Cys Cys His Xaa Val Cys Gly Lys Asn Phe Asp Cys
                                    10
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<211>
       224
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      DNA
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       (7)..(207)
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                                                                       48
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       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc cct tca gat cgt gca tct gat ggc agg gat gac gaa gcc
                                                                       96
Val Ser Phe Pro Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala
15
                                         25
aaa gac gaa agg tct gac atg cac gaa tcg gac cgg aat gga cgc gga
                                                                      144
Lys Asp Glu Arg Ser Asp Met His Glu Ser Asp Arg Asn Gly Arg Gly
                 35
tgc tgt tgc aat cct gcc tgt ggc cca aac tat ggt tgt ggc acc tca
                                                                      192
Cys Cys Cys Asn Pro Ala Cys Gly Pro Asn Tyr Gly Cys Gly Thr Ser
                                 55
                                                                       224
tgc tcc agg acc ctc tgaaccacga cctcgag
Cys Ser Arg Thr Leu
        65
<210>
       389
<211>
       67
<212>
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Arg

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<213> Conus rattus
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Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
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Phe Pro Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala Lys Asp
Glu Arg Ser Asp Met His Glu Ser Asp Arg Asn Gly Arg Gly Cys Cys
Cys Asn Pro Ala Cys Gly Pro Asn Tyr Gly Cys Gly Thr Ser Cys Ser
                        55
Arg Thr Leu
65
      390
<210>
<211>
      22
<212>
      PRT
<213>
      Conus rattus
<220>
<221>
      PEPTIDE
<222>
      (1)..(22)
      Xaa at residues 6 and 10 is Pro or hydroxy-Pro; XXaa at residue 1
       2 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O
       -phospho-Tyr
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Gly Cys Cys Cys Asn Xaa Ala Cys Gly Xaa Asn Xaa Gly Cys Gly Thr
Ser Cys Ser Arg Thr Leu
            20
<210>
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<211>
       230
<212>
      DNA
<213>
     Conus arenatus
<220>
<221>
      CDS
<222>
      (7)..(195)
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                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gat tee tte act eea gtt egt act tet gtt gge agg agt get gea gee
                                                                       96
Asp Ser Phe Thr Pro Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala
                    20
aac gcg ttt gac cgg atc gct ctg acc gcc agg caa gat tat tgc tgt
                                                                      144
Asn Ala Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys
acc att ccc agc tgt tgg gat cgc tat aaa gag aga tgt aga cac ata
                                                                      192
Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile
                                 55
cgc tgatgctcca ggaccctctg aaccacgacc ttgag
                                                                      230
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<210>
       392
<211>
       63
<212>
       PRT
<213>
      Conus arenatus
<400> 392
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Asp Ser
Phe Thr Pro Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala Asn Ala
Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys Thr Ile
Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile Arg
                        55
<210>
       393
<211>
      22
<212> PRT
<213> Conus arenatus
<220>
<221>
      PEPTIDE
<222>
      (1)..(22)
<223>
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 16 is Glu or
       gamma-carboxy-Glu; Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at
        residue 11 is Trp (D or L) or bromo-Trp (D or L);
<220>
<221> PEPTIDE
<222>
      (1)...(22)
      Xaa at residues 3 and 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo
       -Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 393
Xaa Asp Xaa Cys Cys Thr Ile Xaa Ser Cys Xaa Asp Arg Xaa Lys Xaa
Arg Cys Arg His Ile Arg
<210>
       394
       230
<211>
<212> DNA
<213> Conus eburneus
<220>
<221>
      CDS
<222>
      (7)..(195)
<400>
      394
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtg
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gat tee tte act tea gtt egt act tee gtt gge agg agt get gea gee
                                                                       96
Asp Ser Phe Thr Ser Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala
15
                    20
                                         25
aac gcg ttt gac cgg atc gct ctg acc gcc agg caa gat tat tgc tgt
                                                                      144
Asn Ala Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys
```

```
acc att ccc agc tgt tgg gat cgc tat aaa gag aga tgt aga cac ata
                                                                      192
Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile
cgc tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                      230
Arg
<210> 395
<211>
      63
<212> PRT
<213>
      Conus eburneus
<400> 395
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Asp Ser
Phe Thr Ser Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala Asn Ala
Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys Thr Ile
Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile Arg
<210>
       396
<211>
       22
<212>
      PRT
<213>
      Conus eburneus
<220>
<221>
      PEPTIDE
<222>
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 16 is Glu or
       gamma-carboxy-Glu; Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at
        residue 11 is Trp (D or L) or bromo-Trp (D or L);
<220>
<221>
      PEPTIDE
<222>
      (1)..(22)
       Xaa at residues 3 and 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo
       -Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 396
Xaa Asp Xaa Cys Cys Thr Ile Xaa Ser Cys Xaa Asp Arg Xaa Lys Xaa
Arg Cys Arg His Ile Arg
            20
<210>
       397
<211>
       221
<212>
       DNA
<213>
      Conus miles
<220>
<221>
       CDS
<222>
       (7)..(177)
<400> 397
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                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ala Val
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ctt cca gtc act tta gat cgt gca tct gat gga agg aat gca gcc

96

```
Leu Pro Val Thr Leu Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala
aac gcc aaa acg cct cgc ctg atc gcg cca ttc atc agg gat tat tgc
                                                                      144
Asn Ala Lys Thr Pro Arg Leu Ile Ala Pro Phe Ile Arg Asp Tyr Cys
tgt cat aga ggt ccc tgt atg gta tgg tgt ggt tgaagccgct gctgctccag
                                                                      197
Cys His Arg Gly Pro Cys Met Val Trp Cys Gly
gaccctctga accacgacct cgag
                                                                      221
<210>
      398
<211>
      57
<212>
      PRT
<213>
      Conus miles
<400> 398
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ala Val Leu Pro
                                    10
Val Thr Leu Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala Asn Ala
Lys Thr Pro Arg Leu Ile Ala Pro Phe Ile Arg Asp Tyr Cys Cys His
Arg Gly Pro Cys Met Val Trp Cys Gly
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<210>
      399
<211>
       13
<212>
       PRT
<213>
      Conus miles
<220>
<221>
       PEPTIDE
<222>
       (1)..(13)
       Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at residue 12 is Trp
       (D or L) or bromo-Trp (D or L); Xaa at residue 2 is Tyr, 125I-Tyr
       , mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Asp Xaa Cys Cys His Arg Gly Xaa Cys Met Val Xaa Cys
<210>
       400
       218
<211>
<212>
       DNA
<213>
      Conus jDedius
<220>
<221>
       CDS
<222>
       (7)..(174)
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                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
       1
                                            10
gtt tcc aac tct tca gat cgt ggt cca gca tct aat aaa agg aag aat
                                                                        96
Val Ser Asn Ser Ser Asp Arg Gly Pro Ala Ser Asn Lys Arg Lys Asn
                     20
                                         25
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gcc gca atg ctt gac atg atc gct caa cac gcc ata agg ggt tgc tgt
                                                                      144
Ala Ala Met Leu Asp Met Ile Ala Gln His Ala Ile Arg Gly Cys Cys
                35
tee gat cet ege tgt aga tat aga tgt egt tgaagaeget getgeteeag
                                                                      194
Ser Asp Pro Arg Cys Arg Tyr Arg Cys Arg
gaccctctga accacgacct cgag
                                                                      218
<210>
       401
      56
<211>
<212>
      PRT
<213> Conus jDedius
<400> 401
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                    1.0
Asn Ser Ser Asp Arg Gly Pro Ala Ser Asn Lys Arg Lys Asn Ala Ala
            20
Met Leu Asp Met Ile Ala Gln His Ala Ile Arg Gly Cys Cys Ser Asp
Pro Arg Cys Arg Tyr Arg Cys Arg
<210>
      402
<211>
      13
<212> PRT
<213> Conus jDedius
<220>
      PEPTIDE
<221>
<222>
       (1)..(13)
       Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-T
       yr
<400> 402
Gly Cys Cys Ser Asp Xaa Arg Cys Arg Xaa Arg Cys Arg
<210>
      403
<211> 17
<212> PRT
<213> Conus omaria
<220>
<221>
      PEPTIDE
<222>
       (1)..(17)
       Xaa at residues 6 and 13 is Pro or hydroxy-Pro
<400> 403
Gly Cys Cys Ser His Xaa Ala Cys Asn Val Asn Asn Xaa His Ile Cys
Gly
<210>
      404
<211>
      17
<212>
      PRT
<213> Conus omaria
<220>
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<221> PEPTIDE
<222>
      (1)..(17)
      Xaa at residues 6 and 13 is Pro or hydroxy-Pro; C terminus contai
       ns free hydroxyl
<400> 404
Gly Cys Cys Ser His Xaa Ala Cys Asn Val Asn Asn Xaa His Ile Cys
Gly
<210>
      405
<211>
       224
<212>
      DNA
<213> Conus quercinus
<220>
<221>
      CDS
      (7)..(189)
<222>
<400> 405
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
act tca gat cgt gta tct aat ggc agg aaa gct gca gcc aaa ttc aaa
                                                                      96
Thr Ser Asp Arg Val Ser Asn Gly Arg Lys Ala Ala Ala Lys Phe Lys
                                                                     144
geg cet gee etg atg gag etg tee gte agg caa gga tge tgt tea gat
Ala Pro Ala Leu Met Glu Leu Ser Val Arg Gln Gly Cys Cys Ser Asp
                35
                                                                     189
cct qcc tqt qcc gtg agc aat cca gac atc tgt ggc gga gga cgc
Pro Ala Cys Ala Val Ser Asn Pro Asp Ile Cys Gly Gly Gly Arg
                                                                      224
tgatgctcca ggaccctctg aaccacgacc tcgag
<210>
      406
<211>
      61
<212>
      PRT
<213> Conus quercinus
<400> 406
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Thr Ser
Asp Arg Val Ser Asn Gly Arg Lys Ala Ala Ala Lys Phe Lys Ala Pro
Ala Leu Met Glu Leu Ser Val Arg Gln Gly Cys Cys Ser Asp Pro Ala
Cys Ala Val Ser Asn Pro Asp Ile Cys Gly Gly Arg
<210> 407
<211>
       19
<212>
       PRT
<213> Conus quercinus
<220>
<221>
       PEPTIDE
<222> (1)..(19)
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<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 7 and 14 is
      Pro or hydroxy-Pro
<400> 407
Xaa Gly Cys Cys Ser Asp Xaa Ala Cys Ala Val Ser Asn Xaa Asp Ile
Cys Gly Gly
<210> 408
<211>
       230
<212>
      DNA
<213> Conus bandanus
<220>
<221>
      CDS
<222> (7)..(186)
<400> 408
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                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
qtt tcc ttc act tca aat cgt gca ttt cgt cgt agg aat gcc gta gcc
                                                                      96
Val Ser Phe Thr Ser Asn Arg Ala Phe Arg Arg Arg Asn Ala Val Ala
                    20
aaa gcg tct gac ctg atc gct ctg aac gcc agg aga cca gaa tgc tgt
                                                                     144
Lys Ala Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg Pro Glu Cys Cys
                35
act cat cct gcc tgt cac gtg agt cat cca gaa ctc tgt ggt
                                                                     186
Thr His Pro Ala Cys His Val Ser His Pro Glu Leu Cys Gly
            50
                                55
tgaagacgct gacgctccag gaccctctga accacgacct cgag
                                                                     230
       409
<210>
<211>
      60
<212>
      PRT
<213>
      Conus bandanus
<400> 409
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                5
                                    10
Phe Thr Ser Asn Arg Ala Phe Arg Arg Asn Ala Val Ala Lys Ala
Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg Pro Glu Cys Cys Thr His
Pro Ala Cys His Val Ser His Pro Glu Leu Cys Gly
                        55
<210> 410
<211> 17
      PRT
<212>
<213> Conus bandanus
<220>
      PEPTIDE
<221>
<222>
       (1)..(17)
       Xaa at residues 2 and 15 is Glu or gamma-carboxy-Glu; Xaa at resi
```

dues 1, 7 and 14 is Pro or hydroxy-Pro

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<400> 410
Xaa Xaa Cys Cys Thr His Xaa Ala Cys His Val Ser His Xaa Xaa Leu
Cys
<210>
      411
<211>
      242
<212> DNA
<213>
      Conus marmoreus
<220>
<221>
      CDS
<222> (7)..(198)
<400> 411
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtt
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc act tca aat cgt gtt ctg gat cca gca ttt cgt cgt agg
                                                                      96
Val Ser Phe Thr Ser Asn Arg Val Leu Asp Pro Ala Phe Arg Arg Arg
aat gcc gca gcc aaa gcg tct gac ctg atc gct ctg aac gcc agg aga
                                                                     144
Asn Ala Ala Lys Ala Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg
                35
cca gaa tgc tgt act cat cct gcc tgt cac gtg agt aat cca gaa ctc
                                                                     192
Pro Glu Cys Cys Thr His Pro Ala Cys His Val Ser Asn Pro Glu Leu
tgt ggc tgaagacgct gatgctccag gaccctctga accacgacct cgag
                                                                     242
Cys Gly
<210> 412
      64
<211>
<212> PRT
<213> Conus marmoreus
<400> 412
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asn Arg Val Leu Asp Pro Ala Phe Arg Arg Asn Ala
Ala Ala Lys Ala Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg Pro Glu
Cys Cys Thr His Pro Ala Cys His Val Ser Asn Pro Glu Leu Cys Gly
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<210> 413
<211> 17
<212> PRT
<213>
      Conus marmoreus
<220>
<221> PEPTIDE
<222>
       (1)..(17)
<223> Xaa at residues 2 and 15 is Glu or gamma-carboxy-Glu; Xaa at resi
       dues 1, 7 and 14 is Pro or hydroxy-Pro
```

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<400> 413
Xaa Xaa Cys Cys Thr His Xaa Ala Cys His Val Ser Asn Xaa Xaa Leu
                                    10
Cys
      414
<210>
<211> 218
<212> DNA
<213>
     Conus miles
<220>
<221> CDS
<222> (7)..(174)
<400> 414
                                                                      48
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc gtc act tca tat cgt gca tct cat ggc agg aag gac gca gcc
                                                                      96
Val Ser Val Thr Ser Tyr Arg Ala Ser His Gly Arg Lys Asp Ala Ala
                                                                     144
qac ctq agc gct ctg aac gac aac aat aat tgc tgt aac cat cct gcc
Asp Leu Ser Ala Leu Asn Asp Asn Asn Cys Cys Asn His Pro Ala
tgt gcc ggg aaa aat tca gat ctt tgt ggt tgaagacgct gctgctccag
                                                                     194
Cys Ala Gly Lys Asn Ser Asp Leu Cys Gly
            50
                                                                     218
gaccctctga accacgacct cgag
<210>
      415
<211>
       56
<212>
       PRT
<213> Conus miles
<400> 415
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Val Thr Ser Tyr Arg Ala Ser His Gly Arg Lys Asp Ala Ala Asp Leu
            20
                                25
Ser Ala Leu Asn Asp Asn Asn Asn Cys Cys Asn His Pro Ala Cys Ala
Gly Lys Asn Ser Asp Leu Cys Gly
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<210> 416
<211> 15
<212> PRT
<213> Conus miles
<220>
<221>
       PEPTIDE
<222>
        (1)..(15)
<223> Xaa at residue 5 is Pro or hydroxy-Pro
<400> 416
Cys Cys Asn His Xaa Ala Cys Ala Gly Lys Asn Ser Asp Leu Cys
```

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<210>
      417
<211>
       16
<212>
      PRT
<213>
      Conus magus
<220>
<221> PEPTIDE
<222>
      (1)..(16)
<223>
      Xaa at residue 11 is Glu or gamma-carboxy-Glu; Xaa at residue 6 i
       s Pro or hydroxy-Pro; Xaa at residue 4 is Tyr, 125I-Tyr, mono-iod
       o-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 417
Gly Cys Cys Xaa His Xaa Thr Cys His Leu Xaa His Ser Asn Leu Cys
                                    10
<210>
      418
<211>
      224
<212>
      DNA
<213>
      Conus nobilis
<220>
<221>
      CDS
<222>
     (7)..(189)
<220>
<221> misc_feature
<222>
      (1)...(224)
<223>
      n is unknown
<400> 418
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtt
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc act tca gat cgt gca tct gat ggc agg aat gcc gca gcc
                                                                       96
Val Ser Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala
                    20
aaa get tet gae etg att get ttg ace gte agg gga tge tgt gag ega
                                                                      144
Lys Ala Ser Asp Leu Ile Ala Leu Thr Val Arg Gly Cys Cys Glu Arg
cct ccc tgt cgc tgg caa aat cca gat ctt tgt ggt gga agg cgc
                                                                      189
Pro Pro Cys Arg Trp Gln Asn Pro Asp Leu Cys Gly Gly Arg Arg
            50
                                55
                                                                      224
tganattcca ggaccctctg aaccacgacc tcgag
<210>
      419
<211>
       61
<212>
       PRT
<213>
      Conus nobilis
<400> 419
Met Phe Thr Val Phe Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala Lys Ala
Ser Asp Leu Ile Ala Leu Thr Val Arg Gly Cys Cys Glu Arg Pro Pro
        35
                            40
                                                 45
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Cys Arg Trp Gln Asn Pro Asp Leu Cys Gly Gly Arg Arg
<210> 420
<211> 17
<212> PRT
<213> Conus nobilis
<220>
<221>
      PEPTIDE
<222>
       (1)...(17)
<223>
      Xaa at residue 4 is Glu or gamma-carboxy-Glu; Xaa at residues 6,
       7 and 13 is Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D or L)
       or bromo-Trp (D or L)
<400> 420
Gly Cys Cys Xaa Arg Xaa Xaa Cys Arg Xaa Gln Asn Xaa Asp Leu Cys
                                    10
Gly
<210>
      421
<211>
      233
<212>
      DNA
<213> Conus atlanticus
<220>
<221>
      CDS
<222> (7)..(198)
<400> 421
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc aca gtc
                                                                       48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tee tte act tea gat agt gea ttt gat age agg aat gte gea gee
                                                                       96
Val Ser Phe Thr Ser Asp Ser Ala Phe Asp Ser Arg Asn Val Ala Ala
aac gac aaa gtg tct gac atg atc gct ctg acc gcc agg aga aca tqc
                                                                      144
Asn Asp Lys Val Ser Asp Met Ile Ala Leu Thr Ala Arg Arg Thr Cys
tgt tcc cgt cct acc tgt aga atg gaa tat cca gaa ctt tgt ggt gga
                                                                      192
Cys Ser Arg Pro Thr Cys Arg Met Glu Tyr Pro Glu Leu Cys Gly Gly
aga cgc tgatactcca ggaccctctg aaccacgacc tcgag
                                                                      233
Arg Arg
<210>
       422
<211>
       64
<212>
      PRT
<213> Conus atlanticus
<400> 422
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Ser Ala Phe Asp Ser Arg Asn Val Ala Ala Asn Asp
                                2.5
Lys Val Ser Asp Met Ile Ala Leu Thr Ala Arg Arg Thr Cys Cys Ser
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35
                            40
                                                45
Arg Pro Thr Cys Arg Met Glu Tyr Pro Glu Leu Cys Gly Gly Arg Arg
                        55
<210> 423
<211> 17
<212> PRT
<213> Conus atlanticus
<220>
<221>
      PEPTIDE
<222>
      (1)..(17)
<223>
     Xaa at residues 11 and 14 is Glu or gamma-carboxy-Glu; Xaa at res
       idues 6 and 13 is Pro or hydroxy-Pro; Xaa at residue 12 is Tyr, 1
       25I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Ty
<400> 423
Thr Cys Cys Ser Arg Xaa Thr Cys Arg Met Xaa Xaa Xaa Xaa Leu Cys
                                    10
Gly
<210>
      424
<211>
       227
<212>
      DNA
<213>
      Conus quercinus
<220>
<221>
      CDS
<222>
      (7)..(192)
<220>
<221>
      misc_feature
<222>
       (1)..(227)
<223>
      n is unknown
<400> 424
                                                                       48
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca atc acg gtg
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Ile Thr Val
                                                                       96
gtt tcc ttc acc tca gat cat gca tct gat ggc agg aat acc gca gcc
Val Ser Phe Thr Ser Asp His Ala Ser Asp Gly Arg Asn Thr Ala Ala
aac gac aaa gcg tct aaa ctg atg gct ctt acg aac gaa tgc tgt gac
                                                                      144
Asn Asp Lys Ala Ser Lys Leu Met Ala Leu Thr Asn Glu Cys Cys Asp
                                                                      192
aat cct ccg tgc aag tcg agt aat cca gat ttg tgt gac tgg aga agc
Asn Pro Pro Cys Lys Ser Ser Asn Pro Asp Leu Cys Asp Trp Arg Ser
                                                                      227
tgatgctcca ggaccctntg aaccacgacc tcgag
<210> 425
<211>
      62
<212>
      PRT
<213> Conus quercinus
<400> 425
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Ile Thr Val Val Ser
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10

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Phe Thr Ser Asp His Ala Ser Asp Gly Arg Asn Thr Ala Ala Asn Asp
            20
                                25
Lys Ala Ser Lys Leu Met Ala Leu Thr Asn Glu Cys Cys Asp Asn Pro
Pro Cys Lys Ser Ser Asn Pro Asp Leu Cys Asp Trp Arg Ser
<210> 426
      21
<211>
<212> PRT
<213> Conus quercinus
<220>
<221> PEPTIDE
<222>
      (1)..(21)
       Xaa at residue 2 is Glu or gamma-carboxy-Glu; Xaa at residues 7,
       8 and 14 is Pro or hydroxy-Pro; Xaa at residue 19 is Trp (D or L)
        or bromo-Trp (D or L)
<400> 426
Asn Xaa Cys Cys Asp Asn Xaa Xaa Cys Lys Ser Ser Asn Xaa Asp Leu
Cys Asp Xaa Arg Ser
<210> 427
<211>
      221
<212> DNA
<213> Conus leopardus
<220>
<221>
      CDS
<222>
      (7)..(177)
<400> 427
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace acg gte
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ctc act tta gat cgt gca tct ggt ggc agg aga tct gga gcc
                                                                      96
Val Ser Leu Thr Leu Asp Arg Ala Ser Gly Gly Arg Arg Ser Gly Ala
gac aac atg att gct ctt ctg atc atc aga aaa tgc tgt tcc aat ccc
                                                                     144
Asp Asn Met Ile Ala Leu Leu Ile Ile Arg Lys Cys Cys Ser Asn Pro
                                    40
gcc tgt aac agg tat aat cca gca att tgt gat tgaagacgct aatgctccaq
                                                                     197
Ala Cys Asn Arg Tyr Asn Pro Ala Ile Cys Asp
gaccctctga accacgacct cgag
                                                                      221
<210> 428
      57
<211>
<212> PRT
<213> Conus leopardus
<400> 428
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
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Leu Thr Leu Asp Arg Ala Ser Gly Gly Arg Arg Ser Gly Ala Asp Asn
            20
                                25
Met Ile Ala Leu Leu Ile Ile Arg Lys Cys Cys Ser Asn Pro Ala Cys
Asn Arg Tyr Asn Pro Ala Ile Cys Asp
<210> 429
<211>
      16
<212> PRT
<213> Conus leopardus
<220>
<221> PEPTIDE
<222>
       (1)..(16)
      Xaa at residues 5 and 12 is Pro or hydroxy-Pro; Xaa at residue 10
       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-
       phospho-Tyr
<400> 429
Cys Cys Ser Asn Xaa Ala Cys Asn Arg Xaa Asn Xaa Ala Ile Cys Asp
                                    10
<210>
      430
<211>
       224
<212>
      DNA
<213>
      Conus emaciatus
<220>
<221>
      CDS
      (7)..(180)
<222>
<400> 430
ggatee atg tte ace gtg ttt etg ttg gtt ete ttg gea ace act gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Leu Leu Ala Thr Thr Val
act tta cat cgt gca tct aat ggc agg aat gcc gca gcc agc agg aaa
                                                                      96
Thr Leu His Arg Ala Ser Asn Gly Arg Asn Ala Ala Ala Ser Arg Lys
                                        25
                                                            30
gcg tet gcc etg ate gct eag ate gcc ggt aga gae tgc tgt aac ttt
                                                                     144
Ala Ser Ala Leu Ile Ala Gln Ile Ala Gly Arg Asp Cys Cys Asn Phe
cct gct tgt gcc gcg agt aat cca ggc ctt tgt act tgaagacgct
                                                                     190
Pro Ala Cys Ala Ala Ser Asn Pro Gly Leu Cys Thr
gctgctccag gaccctctga accacgacct cgag
                                                                     224
<210>
       431
<211>
       58
<212>
      PRT
<213> Conus emaciatus
<400> 431
Met Phe Thr Val Phe Leu Leu Val Leu Leu Ala Thr Thr Val Thr Leu
His Arg Ala Ser Asn Gly Arg Asn Ala Ala Ser Arg Lys Ala Ser
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25

30

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Ala Leu Ile Ala Gln Ile Ala Gly Arg Asp Cys Cys Asn Phe Pro Ala
Cys Ala Ala Ser Asn Pro Gly Leu Cys Thr
<210> 432
<211> 17
<212>
      PRT
<213> Conus emaciatus
<220>
<221>
     PEPTIDE
<222>
      (1)..(17)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro
<400> 432
Asp Cys Cys Asn Phe Xaa Ala Cys Ala Ala Ser Asn Xaa Gly Leu Cys
Thr
<210>
      433
<211>
      215
<212>
      DNA
<213>
      Conus victor
<220>
<221>
      CDS
     (7)..(180)
<222>
<400> 433
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace ace ate
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Ile
gtt tee tee act tta gat egt gea tet gat gge atg aat get gea geg
                                                                      96
Val Ser Ser Thr Leu Asp Arg Ala Ser Asp Gly Met Asn Ala Ala Ala
                    20
                                        25
tct gac ctg atc ctg agc atc agg aga tgc tgt tct tct cct ccc
                                                                     144
Ser Asp Leu Ile Ala Leu Ser Ile Arg Arg Cys Cys Ser Ser Pro Pro
tgt ttc gcg agt aat cca gct tgt ggt aga cga cgc tgatgctcca
                                                                     190
Cys Phe Ala Ser Asn Pro Ala Cys Gly Arg Arg Arg
ggaccetetg aaccacgace tegag
                                                                     215
<210>
      434
<211>
      58
<212> PRT
<213> Conus victor
<400> 434
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Ile Val Ser
Ser Thr Leu Asp Arg Ala Ser Asp Gly Met Asn Ala Ala Ala Ser Asp
            20
                                25
Leu Ile Ala Leu Ser Ile Arg Arg Cys Cys Ser Ser Pro Pro Cys Phe
Ala Ser Asn Pro Ala Cys Gly Arq Arg Arg
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50
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<210> 435
<211> 14
<212> PRT
<213> Conus victor
<220>
<221>
      PEPTIDE
<222>
       (1)...(14)
<223>
      Xaa at residues 5, 6 and 13 is Pro or hydroxy-Pro
<400> 435
Cys Cys Ser Ser Xaa Xaa Cys Phe Ala Ser Asn Xaa Ala Cys
<210>
      436
       230
<211>
<212>
       DNA
<213>
       Conus cinereus gubba
<220>
<221>
       CDS
<222>
       (7)..(195)
<400> 436
ggatee atg tte ace gtg ttt etg ttg gtt gte etg gea ace act ate
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Ile
gtt tcc tcc act tca ggt cat gca ttt gat ggc agg aat gct gca gcc
                                                                       96
Val Ser Ser Thr Ser Gly His Ala Phe Asp Gly Arg Asn Ala Ala Ala
                    20
                                         25
gac tac aaa ggg tct gaa ttg ctt gct atg acc gtc agg gga gga tgc
                                                                      144
Asp Tyr Lys Gly Ser Glu Leu Leu Ala Met Thr Val Arg Gly Gly Cys
                                    40
tgt tcc ttt cct ccc tgt atc gca aat aat cct ttt tgt gct gga aga
                                                                      192
Cys Ser Phe Pro Pro Cys Ile Ala Asn Asn Pro Phe Cys Ala Gly Arg
cgc tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                      230
Arg
<210>
      437
<211>
      63
<212> PRT
<213> Conus cinereus gubba
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Ile Val Ser
Ser Thr Ser Gly His Ala Phe Asp Gly Arg Asn Ala Ala Ala Asp Tyr
Lys Gly Ser Glu Leu Leu Ala Met Thr Val Arg Gly Gly Cys Cys Ser
Phe Pro Pro Cys Ile Ala Asn Asn Pro Phe Cys Ala Gly Arg Arg
                        55
<210> 438
<211> 17
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<212> PRT
<213> Conus cinereus gubba
<220>
<221>
      PEPTIDE
<222>
      (1)...(17)
       Xaa at residues 7, 8 and 14 is Pro or hydroxy-Pro
<400> 438
Gly Gly Cys Cys Ser Phe Xaa Xaa Cys Ile Ala Asn Asn Xaa Phe Cys
Ala
<210>
      439
<211> 221
<212> DNA
<213> Conus flavidus
<220>
<221>
      CDS
<222>
      (7)..(177)
<400> 439
ggatee atg tte ace gtg ttt etg ttg gtt gte tte gea tee tet gte
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val
act tta gat cgt gca tct cat ggc agg tat atc cca gtc gtc gac aga
                                                                      96
Thr Leu Asp Arg Ala Ser His Gly Arg Tyr Ile Pro Val Val Asp Arg
gcg tct gcc ctg atg gct cag gcc gac ctt aga ggt tgc tgt tcc aat
                                                                     144
Ala Ser Ala Leu Met Ala Gln Ala Asp Leu Arg Gly Cys Cys Ser Asn
                35
cct cct tgt tcc tat ctt aat cca gcc tgt ggt taaagacgct gccgctccag
                                                                     197
Pro Pro Cys Ser Tyr Leu Asn Pro Ala Cys Gly
gaccctctga accacgacct cgag
                                                                      221
<210> 440
      57
<211>
<212> PRT
<213> Conus flavidus
<400> 440
Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val Thr Leu
Asp Arg Ala Ser His Gly Arg Tyr Ile Pro Val Val Asp Arg Ala Ser
                                25
Ala Leu Met Ala Gln Ala Asp Leu Arg Gly Cys Cys Ser Asn Pro Pro
Cys Ser Tyr Leu Asn Pro Ala Cys Gly
    50
<210>
      441
<211>
       15
<212>
      PRT
<213> Conus flavidus
<220>
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<221> PEPTIDE
<222>
       (1)..(15)
      Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro; Xaa at residue
<223>
        10 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or
       O-phospho-Tyr
<400> 441
Gly Cys Cys Ser Asn Xaa Xaa Cys Ser Xaa Leu Asn Xaa Ala Cys
                                    10
<210>
      442
<211>
      221
<212>
     DNA
<213> Conus emaciatus
<220>
<221> CDS
<222>
     (7)..(177)
<400> 442
ggatee atg tte ace gtg ttt etg ttg gtt gte tte gea tee tet gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val
act tta gat cgt gca tct cat ggc agg tat gcc gca gtc gtc aac aga
                                                                      96
Thr Leu Asp Arg Ala Ser His Gly Arg Tyr Ala Ala Val Val Asn Arg
                    20
geg tet gee etg atg get eat gee gee ett ega gat tge tgt tee gat
                                                                     144
Ala Ser Ala Leu Met Ala His Ala Ala Leu Arg Asp Cys Cys Ser Asp
                35
                                    40
cct cct tgt gct cat aat cca gac tgt cgt taaagacgct gctgctccag
                                                                     197
Pro Pro Cys Ala His Asn Asn Pro Asp Cys Arg
            50
gaccctctga accacgacct cgag
                                                                     221
<210>
      443
<211>
      57
<212> PRT
<213>
     Conus emaciatus
<400> 443
Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val Thr Leu
                5
                                    10
Asp Arg Ala Ser His Gly Arg Tyr Ala Ala Val Val Asn Arg Ala Ser
                                25
Ala Leu Met Ala His Ala Ala Leu Arg Asp Cys Cys Ser Asp Pro Pro
Cys Ala His Asn Asn Pro Asp Cys Arg
<210> 444
<211>
       16
<212>
      PRT
<213> Conus emaciatus
<220>
      PEPTIDE
<221>
<222>
       (1)..(16)
     Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro
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<400> 444
Asp Cys Cys Ser Asp Xaa Xaa Cys Ala His Asn Asn Xaa Asp Cys Arg
<210>
      445
<211>
      230
<212>
      DNA
<213> Conus generalis
<220>
<221>
      CDS
<222>
      (7)..(195)
<400> 445
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca act act gtc
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                           10
gtt tcc ttc act tca gat cgt ggg tct gat ggc agg aat gcc gca gcc
                                                                      96
Val Ser Phe Thr Ser Asp Arg Gly Ser Asp Gly Arg Asn Ala Ala Ala
15
                    20
                                        25
aag gac aaa gcg tct gac ctg gtc gct ctg acc gtc aag gga tgc tgt
                                                                     144
Lys Asp Lys Ala Ser Asp Leu Val Ala Leu Thr Val Lys Gly Cys Cys
tet aat eet eee tgt tae geg aat aat eaa gee tat tgt aat gga aga
                                                                     192
Ser Asn Pro Pro Cys Tyr Ala Asn Asn Gln Ala Tyr Cys Asn Gly Arg
                                55
cgc tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                      230
      446
<210>
<211>
       63
<212>
       PRT
<213>
      Conus generalis
<400> 446
Met Phe Thr Val Phe Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Arg Gly Ser Asp Gly Arg Asn Ala Ala Lys Asp
Lys Ala Ser Asp Leu Val Ala Leu Thr Val Lys Gly Cys Cys Ser Asn
Pro Pro Cys Tyr Ala Asn Asn Gln Ala Tyr Cys Asn Gly Arg Arg
                        55
<210> 447
<211> 17
<212> PRT
<213> Conus generalis
<220>
<221>
       PEPTIDE
<222>
       (1)..(17)
      Xaa at residues 6 and 7 is Pro or hydroxy-Pro; Xaa at residues 9
       and 15 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr
        or O-phospho-Tyr
      447
Gly Cys Cys Ser Asn Xaa Xaa Cys Xaa Ala Asn Asn Gln Ala Xaa Cys
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15

48

96

144

192

212

10

5

1

Asn

<210> 448

<220> <221>

<222>

PEPTIDE

(1)..(25)

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     <212>
           DNA
     <213>
           Conus wittigi
     <220>
     <221>
            CDS
     <222>
           (7)..(195)
     <400> 448
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            Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
     gtt tcc ccc act aga gat cgt gca tct ggt gtc agg aat gtt gtt gca
     Val Ser Pro Thr Arg Asp Arg Ala Ser Gly Val Arg Asn Val Val Ala
                          20
                                               25
     aca age ttt cag act ctg acc cac gat gaa tge tgt gea cac cet tee
     Thr Ser Phe Gln Thr Leu Thr His Asp Glu Cys Cys Ala His Pro Ser
And the second
     tgt tgg aag gcc gaa gac ctg att tgt act aat caa cgt cgc agg acc
     Cys Trp Lys Ala Glu Asp Leu Ile Cys Thr Asn Gln Arg Arg Arg Thr
81
Maria dina
Maria di di
Maria Maria
     ctc tgaaccacga cctcgag
     Leu
            449
     <210>
     <211>
            63
     <212>
            PRT
     <213>
            Conus wittigi
     <400> 449
     Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
     Pro Thr Arg Asp Arg Ala Ser Gly Val Arg Asn Val Val Ala Thr Ser
     Phe Gln Thr Leu Thr His Asp Glu Cys Cys Ala His Pro Ser Cys Trp
     Lys Ala Glu Asp Leu Ile Cys Thr Asn Gln Arg Arg Thr Leu
         50
     <210>
             450
     <211>
             25
     <212>
             PRT
     <213> Conus wittigi
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<210> 453 <211> 20 <212> PRT

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<223> Xaa at residues 2 and 13 is Glu or gamma-carboxy-Glu; Xaa at resi
      due 7 is Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D or L) or
       bromo-Trp (D or L)
<400> 450
Asp Xaa Cys Cys Ala His Xaa Ser Cys Xaa Lys Ala Xaa Asp Leu Ile
Cys Thr Asn Gln Arg Arg Arg Thr Leu
            20
      451
<210>
<211>
      230
<212>
      DNA
<213>
      Conus caracteristicus
<220>
<221>
      CDS
<222>
      (7)..(195)
<400> 451
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                      96
gtt tee tte act tea gat egt geg tet gaa gge agg aat get gea gee
Val Ser Phe Thr Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Ala Ala
aag gac aaa gcg tct gac ctg gtg gct ctg aga gtc agg gga tgc tgt
                                                                      144
Lys Asp Lys Ala Ser Asp Leu Val Ala Leu Arg Val Arg Gly Cys Cys
                35
                                                                      192
gcc att cgt gaa tgt cgc ttg cag aat gca gcg tat tgt ggt gga ata
Ala Ile Arg Glu Cys Arg Leu Gln Asn Ala Ala Tyr Cys Gly Gly Ile
                                                                      230
tcc tgatgctcca ggaccctctg aaccacgacc tcgag
<210> 452
<211>
      63
<212>
      PRT
<213> Conus caracteristicus
<400> 452
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Ala Ala Lys Asp
Lys Ala Ser Asp Leu Val Ala Leu Arg Val Arg Gly Cys Cys Ala Ile
Arg Glu Cys Arg Leu Gln Asn Ala Ala Tyr Cys Gly Gly Ile Ser
```

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<213> Conus caracteristicus
<220>
<221>
      PEPTIDE
<222>
      (1)..(20)
     Xaa at residue 7 is Glu or gamma-carboxy-Glu; Xaa at residue 15 i
       s Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-ph
       ospho-Tyr
<400> 453
Gly Cys Cys Ala Ile Arg Xaa Cys Arg Leu Gln Asn Ala Ala Xaa Cys
                                    10
Gly Gly Ile Ser
       454
<210>
<211>
       568
<212>
      DNA
      Conus betulinus
<213>
<220>
<221>
      CDS
<222>
      (395)..(508)
<220>
<221>
      misc_feature
       (1)...(568)
<222>
<223>
      n is unknown
<400> 454
aqtaattnat atannaqaaa qnaananaaa annatanaga atttaaqtaa tntaagaann
                                                                       60
gaganagtga atagnagnta agtagannaa ganaggtaga nagnanangn ggangntagn
                                                                      120
taataqatan nntatngaga nattantagc ngtatanana agaaaagagg gnaanngaaa
                                                                      180
tgnngnaann ataantanta nngatngann ngnaagtgnn aagngtanaa ggaanaacaa
                                                                      240
                                                                      300
antnqttqtn taatntgnnt gngtgtgtnt gtgtgngtgt gtgtgtgtgn gtgngtgtgt
ntqtqnqnnt qtqtqnqnqn qnqnqtqtgt gtgtgngtgt gtgtgtgtgt gtgtgtgtt
                                                                      360
                                                                      415
gtgtgtgtgt gngtgtgtgg ttctggatcc agca tct ggt ggc agg aag gct gca
                                       Ser Gly Gly Arg Lys Ala Ala
gcc aaa gcg tct aac cgg atc gct ctg acc gtc agg agt gca aca tgc
                                                                      463
Ala Lys Ala Ser Asn Arg Ile Ala Leu Thr Val Arg Ser Ala Thr Cys
tgt tat tat cct ccc tgt tac gag gct tat cca gaa agt tgt ctg
                                                                      508
Cys Tyr Tyr Pro Pro Cys Tyr Glu Ala Tyr Pro Glu Ser Cys Leu
taacqtqaat catccaqacc tttgtggctg aagaccetga tgctccaggg gcaagttcaa
                                                                      568
<210>
       455
<211>
       38
       PRT
<212>
<213> Conus betulinus
<400> 455
Ser Gly Gly Arg Lys Ala Ala Ala Lys Ala Ser Asn Arg Ile Ala Leu
                                     10
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Thr Val Arg Ser Ala Thr Cys Cys Tyr Tyr Pro Pro Cys Tyr Glu Ala
                                25
Tyr Pro Glu Ser Cys Leu
        35
<210> 456
<211>
      19
<212>
      PRT
<213>
      Conus betulinus
<220>
<221>
      PEPTIDE
<222>
      (1)..(19)
      Xaa at residues 12 and 16 is Glu or gamma-carboxy-Glu; Xaa at res
       idues 8, 9 and 13 is Pro or hydroxy-Pro; Xaa at residues 6, 7, 11
       and 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Ty
       r or O-phospho-Tyr
<400> 456
Ser Ala Thr Cys Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Ala Xaa Xaa
Ser Cys Leu
      457
<210>
<211>
       29
<212>
       PRT
      Conus textile
<213>
<400> 457
Asp Cys Arg Gly Tyr Asp Ala Pro Cys Ser Ser Gly Ala Pro Cys Cys
Asp Trp Trp Thr Cys Ser Ala Arg Thr Asn Arg Cys Phe
<210>
      458
<211>
      31
<212> PRT
<213> Conus ammiralis
<400> 458
Gly Met Trp Gly Asp Cys Lys Asp Gly Leu Thr Thr Cys Phe Ala Pro
Ser Glu Cys Cys Ser Glu Asp Cys Glu Gly Ser Cys Thr Met Trp
       459
<210>
<211>
       36
<212>
       PRT
      Conus ammiralis
<400> 459
Trp Arg Glu Gly Ser Cys Thr Ser Trp Leu Ala Thr Cys Thr Gln Asp
                                     10
Gln Gln Cys Cys Thr Asp Val Cys Tyr Lys Arg Asp Tyr Cys Ala Leu 20 25 30
Trp Asp Asp Arg
        35
```

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<210> 460
<211> 25
<212> PRT
<213> Conus ammiralis
<400> 460
Asn Cys Ser Asp Asp Trp Gln Tyr Cys Glu Ser Pro Ser Asp Cys Cys
Ser Trp Asp Cys Asp Val Val Cys Ser
<210> 461
<211> 39
<212> PRT
<213> Conus ammiralis
<400> 461
Trp Trp Arg Trp Gly Gly Cys Met Ala Trp Phe Gly Lys Cys Ser Lys
Asp Ser Glu Cys Cys Ser Asn Ser Cys Asp Ile Thr Arg Cys Glu Leu 20 25 30
Met Arg Phe Pro Pro Asp Trp
<210> 462
<211> 29
<212> PRT
<213> Conus ammiralis
<400> 462
Asp Cys Arg Gly Tyr Asp Ala Pro Cys Ser Ser Gly Ala Pro Cys Cys
Asp Trp Trp Thr Cys Ser Ala Arg Thr Gly Arg Cys Phe
<210> 463
<211> 26
<212> PRT
<213> Conus ammiralis
<400> 463
Leu Cys Pro Asp Tyr Thr Glu Pro Cys Ser His Ala His Glu Cys Cys
Ser Trp Asn Cys His Asn Gly His Cys Thr
<210> 464
<211>
       27
<212> PRT
<213> Conus ammiralis
<400> 464
Cys Ser Ser Trp Ala Lys Tyr Cys Glu Val Asp Ser Glu Cys Cys Ser
Glu Gln Cys Val Arg Ser Tyr Cys Ala Met Trp
 <210> 465
 <211> 32
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<212> PRT
<213> Conus pennaceus
<220>
<221> PEPTIDE
<222>
     (1)..(32)
     Xaa at residues 14 and 26 is gamma-carboxy-Glu; Xaa at residue 31
       is hydroxy-Pro
<400> 465
Asp Cys Thr Ser Trp Phe Gly Arg Cys Thr Val Asn Ser Xaa Cys Cys
Ser Asn Ser Cys Asp Gln Thr Tyr Cys Xaa Leu Tyr Ala Phe Xaa Ser
<210> 466
<211> 32
<212> PRT
<213> Conus gloriamaris
<400> 466
Glu Cys Arg Ala Trp Tyr Ala Pro Cys Ser Pro Gly Ala Gln Cys Cys
Ser Leu Leu Met Cys Ser Lys Ala Thr Ser Arg Cys Ile Leu Ala Leu
<210> 467
<211> 27
<212> PRT
<213> Conus textile
<220>
      PEPTIDE
<221>
<222>
       (1)..(27)
<223>
      Xaa is gamma-carboxy-Glu
<400> 467
Cys Lys Thr Tyr Ser Lys Tyr Cys Xaa Ala Asp Ser Xaa Cys Cys Thr
Xaa Gln Cys Val Arg Ser Tyr Cys Thr Leu Phe
<210> 468
<211> 29
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222>
      (1)..(29)
<223> Xaa is gamma-carboxy-Glu
<400> 468
Asn Gly Gln Cys Glu Asp Val Trp Met Pro Cys Thr Ser Asn Trp Xaa
Cys Cys Ser Leu Asp Cys Glu Met Tyr Cys Thr Gln Ile
<210> 469
<211>
      27
<212> PRT
```

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arij gring gring arise awar gan gan gring awar
undu dunit dunit dunit of them the state dunit than it dunit than an arise arise article dunit dunit
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<213> Conus marmoreus
<220>
<221>
      PEPTIDE
<222>
      (1)..(27)
<223>
      Xaa is gamma-carboxy-Glu
<400> 469
Cys Gly Gly Trp Ser Thr Tyr Cys Glu Val Asp Glu Xaa Cys Cys Ser
Glu Ser Cys Val Arg Ser Tyr Cys Thr Leu Phe
<210>
      470
<211> 26
<212>
     PRT
<213>
      Conus marmoreus
<220>
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<221>
<222>
      (1)..(26)
<223>
      Xaa is gamma-carboxy-Glu
<400> 470
Asn Gly Gly Cys Lys Ala Thr Trp Met Ser Cys Ser Ser Gly Trp Xaa
Cys Cys Ser Met Ser Cys Asp Met Tyr Cys
                                25
<210>
       471
<211>
      33
<212>
      PRT
      Conus radiatus
<213>
<220>
<221>
      PEPTIDE
<222>
      (1)..(33)
      Xaa at residues 1, 10 and 33 is bromo-Trp; Xaa at residues 5, 6,
       15 and 26 is gamma-carboxy-Glu
<400> 471
Xaa Phe Gly His Xaa Xaa Cys Thr Tyr Xaa Leu Gly Pro Cys Xaa Val
                                    10
                                                        15
Asp Asp Thr Cys Cys Ser Ala Ser Cys Xaa Ser Lys Phe Cys Gly Leu
Xaa
<210>
       472
<211>
       31
<212> PRT
<213> Conus radiatus
<400> 472
Trp Trp Glu Gly Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro
Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp
<210>
       473
<211> 26
```

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<212> PRT
<213> Conus textile
<220>
<221>
      PEPTIDE
      (1)..(26)
      Xaa at residues 3 and 8 is hydroxy-Pro; Xaa at residues 7 and 14
       is gamma-carboxy-Glu
<400> 473
Leu Cys Xaa Asp Tyr Thr Xaa Xaa Cys Ser His Ala His Xaa Cys Cys
Ser Trp Asn Cys Tyr Asn Gly His Cys Thr
<210>
      474
<211>
      28
<212>
      PRT
<213>
      Conus textile
<400> 474
Asp Cys Tyr Ser Trp Leu Gly Ser Cys Ile Ala Pro Ser Gln Cys Cys
Ser Glu Val Cys Asp Tyr Tyr Cys Arg Leu Trp Arg
<210>
      475
<211> 34
<212> PRT
<213> Conus textile
<220>
      PEPTIDE
<221>
<222>
       (1)..(34)
<223>
      Xaa is gamma-carboxy-Glu
<400> 475
Trp Leu Glu Cys Ser Val Trp Phe Ser His Cys Thr Lys Asp Ser Xaa
Cys Cys Ser Asn Ser Cys Asp Gln Thr Tyr Cys Thr Leu Met Pro Pro
                                25
Asp Trp
<210> 476
<211>
      31
<212>
      PRT
<213> Conus textile
<220>
<221>
      PEPTIDE
<222>
      (1)..(31)
<223> Xaa is gamma-carboxy-Glu
<400> 476
Gly Met Trp Gly Glu Cys Lys Asp Gly Leu Thr Thr Cys Leu Ala Pro
Ser Xaa Cys Cys Ser Glu Asp Cys Glu Gly Ser Cys Thr Met Trp
                                25
<210> 477
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<211>
       34
<212>
      PRT
<213>
      Conus textile
<220>
<221>
      PEPTIDE
      (1)...(34)
<223> Xaa is gamma-carboxy-Glu
<400> 477
Asp Trp Trp Asp Asp Gly Cys Ser Val Trp Gly Pro Cys Thr Val Asn
                                    10
Ala Xaa Cys Cys Ser Gly Asp Cys His Glu Thr Cys Ile Phe Gly Trp
Glu Val
<210>
      478
<211>
       39
<212> PRT
<213>
     Conus textile
<220>
<221>
      PEPTIDE
<222>
      (1)..(39)
<223> Xaa is gamma-carboxy-Glu
<400> 478
Trp Trp Arg Trp Gly Gly Cys Met Ala Trp Phe Gly Leu Cys Ser Arg
Asp Ser Xaa Cys Cys Ser Asn Ser Cys Asp Val Thr Arg Cys Glu Leu
            20
                                25
Met Pro Phe Pro Pro Asp Trp
        35
<210> 479
<211>
      27
<212> PRT
<213> Conus textile
<220>
      PEPTIDE
<221>
<222>
      (1)..(27)
<223> Xaa is gamma-carboxy-Glu
<400> 479
Cys Gly Gly Tyr Ser Thr Tyr Cys Xaa Val Asp Ser Xaa Cys Cys Ser
Asp Asn Cys Val Arg Ser Tyr Cys Thr Leu Phe
<210>
      480
<211>
       43
<212>
       PRT
<213> Conus caracteristicus
<400> 480
Gly Cys Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly
Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His
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20
                                25
His Phe Tyr Arg Gly Cys Thr Cys Ser Cys Gln
<210> 481
<211>
      42
<212> PRT
      Conus caracteristicus
<400> 481
Gly Cys Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly
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Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His

His Phe Tyr Arg Gly Cys Thr Cys Thr Cys

<210> 482 <211> 42 <212> PRT

<213> Conus caracteristicus

<400> 482 Gly Cys Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His 20 25 30

His Phe Tyr Arg Gly Cys Thr Cys 35 40

<210> 483 <211> 42 <212> PRT

Conus caracteristicus <213>

<400> 483

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Gly Cys Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His

His Phe Tyr Arg Gly Cys Thr Cys

<210> 484 <211> 42 <212> PRT

<213> Conus caracteristicus

<400> 484

Gly Cys Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His 20 25 30

His Phe Tyr Arg Gly Cys Thr Cys Thr Cys 35 40

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<210>
      485
<211>
      42
<212>
      PRT
<213> Conus caracteristicus
<400> 485
Gly Cys Ser Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly
Thr Cys Asp Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu
Gly Thr Tyr Ser Gly Cys Val Cys Ile Cys
<210>
      486
<211>
      45
<212>
      PRT
<213>
      Conus lacterculatus
Gln Ser Glu Thr Ala Cys Arg Ser Leu Gly Ser Tyr Gln Cys Met Gly
                                    10
Lys Cys Gln Leu Gly Val His Ser Trp Cys Glu Cys Ile Tyr Asn Arg
Gly Ser Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys
<210>
      487
<211>
      48
<212>
      PRT
<213> Conus monachus
<400> 487
Gln Cys Thr Leu Val Asn Asn Cys Asp Arg Asn Gly Glu Arg Ala Cys
Asn Gly Asp Cys Ser Cys Glu Gly Gln Ile Cys Lys Cys Gly Tyr Arg
Val Ser Pro Gly Lys Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
<210>
      488
<211>
      41
<212>
      PRT
<213> Conus purpurascens
<400> 488
Gly Cys Ser Gly Ser Pro Cys Phe Lys Asn Lys Thr Cys Arg Asp Glu
Cys Ile Cys Gly Gly Leu Ser Asn Cys Trp Cys Gly Tyr Gly Gly Ser
Arg Gly Cys Lys Cys Thr Cys Arg Glu
<210>
       489
<211>
       47
<212>
      PRT
<213> Conus radiatus
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<400> 489
Lys Cys Asn Phe Asp Lys Cys Lys Gly Thr Gly Val Tyr Asn Cys Gly
Glu Ser Cys Ser Cys Glu Gly Leu His Ser Cys Arg Cys Thr Tyr Asn
Ile Gly Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Tyr Tyr
<210>
       490
<211>
       44
<212>
       PRT
<213> Conus radiatus
<400> 490
Tyr Gly Leu Gly Cys Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val
Arg Asp Tyr Cys Asp Cys Pro Lys Pro Asn Cys Tyr Cys Thr Gly Lys 20 25 30
Gly Phe Arg Gln Pro Gly Cys Gly Cys Ser Cys Leu
<210>
       491
<211>
       46
<212>
       PRT
<213> Conus striolatus
<400> 491
Gln Cys Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Cys Ala Asn Gly
Asp Cys Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Tyr Arg Ile Ser
Pro Gly Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
<210> 492
<211>
      44
<212> PRT
<213>
      Conus tulipa
<400> 492
Phe Gly Pro Ile Cys Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser
Cys Glu Cys Met Ser Pro Pro Gly Cys Tyr Cys Ser Asn Asn Gly Ile
Arg Glu Arg Gly Cys Ser Cys Thr Cys Pro Gly Thr
       493
<210>
<211>
       46
       PRT
<212>
<213>
       Conus tulipa
<400> 493
Gly Cys Thr Gly Asn Cys Asp Trp Thr Cys Ser Gly Asp Cys Ser Cys
Gln Gly Thr Ser Asp Ser Cys His Cys Ile Pro Pro Lys Ser Ile Gly
```

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and the first of the first transfer the first transfer to the first transfer the first transfer transf
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Asn Arg Cys Arg Cys Gln Cys Lys Arg Lys Ile Glu Ile Asp
                    40
<210> 494
<211> 15
<212> PRT
<213> Conus textile
<400> 494
Glu Cys Cys Glu Asp Gly Trp Cys Cys Thr Ala Ala Pro Leu Thr
<210> 495
<211> 15
<212> PRT
<213> Conus textile
<400> 495
Gly Cys Cys Glu Asp Gly Trp Cys Cys Thr Ala Ala Pro Leu Thr
<210> 496
<211> 20
<212> PRT
<213> Conus marmoreus
<400> 496
Asn Gly Cys Cys Arg Ala Gly Asp Cys Cys Ser Arg Phe Glu Ile Lys
                                   10
Glu Asn Asp Phe
<210> 497
<211> 11
<212> PRT
<213> Conus marmoreus
<400> 497
Asn Gly Cys Cys Arg Ala Gly Asp Cys Cys Ser
<210> 498
<211> 10
<212> PRT
<213> Conus marmoreus
<400> 498
Asn Ala Cys Cys Ile Val Arg Gln Cys Cys
<210> 499
<211>
     10
<212> PRT
<213> Conus quercinus
<400> 499
Gly Cys Cys Ala Arg Leu Thr Cys Cys Val
                5
<210> 500
<211> 10
<212> PRT
<213> Conus quercinus
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and the first of the state of t
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<400> 500
Gly Cys Cys Ala Met Leu Thr Cys Cys Val
<210> 501
<211> 12
<212> PRT
<213> Conus purpurascens
<400> 501
Gly Cys Cys Pro Lys Gln Met Arg Cys Cys Thr Leu
<210> 502
<211> 11
<212> PRT
<213> Conus caracteristicus
<400> 502
Cys Cys Pro Arg Arg Leu Ala Cys Cys Ile Ile
<210> 503
<211> 10
<212> PRT
<213> Conus caracteristicus
<400> 503
Cys Cys Pro Asn Lys Pro Cys Cys Phe Ile
<210> 504
<211> 13
<212> PRT
<213> Conus geographus
<400> 504
Glx Gly Trp Cys Cys Lys Glu Asn Ile Ala Cys Cys Ile
<210> 505
<211> 13
<212> PRT
<213> Conus geographus
<400> 505
Glx Gly Trp Cys Cys Lys Glu Asn Ile Ala Cys Cys Val
<210> 506
<211> 15
<212> PRT
<213> Conus imperialis
<400> 506
Asp Trp Asn Ser Cys Cys Gly Lys Asn Pro Gly Cys Cys Pro Trp
<210> 507
<211> 11
<212> PRT
<213> Conus betulinus
<400> 507
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and the first of most from their times are trace than their times the control of the control of
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Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
<210> 508
<211>
      12
<212> PRT
<213> Conus ammiralis
<400> 508
Gly Asn Cys Cys Glu Phe Trp Glu Phe Cys Cys Asp
<210> 509
<211> 9
<212> PRT
<213> Conus dalli
<400> 509
Cys Cys Glu Tyr Trp Lys Leu Cys Cys
<210> 510
<211> 11
<212> PRT
<213> Conus omaria
<400> 510
Val Cys Cys Gly Tyr Lys Phe Phe Cys Cys Arg
<210>
      511
<211> 11
<212> PRT
<213> Conus aulicus
<400> 511
Phe Cys Cys Pro Val Ile Arg Tyr Cys Cys Trp
<210> 512
<211> 11
<212> PRT
<213> Conus aulicus
<400> 512
Phe Cys Cys Pro Phe Ile Arg Tyr Cys Cys Trp
<210> 513
<211>
       10
<212> PRT
<213> Conus aulicus
<400> 513
Cys Cys Pro Met Ile Tyr Trp Cys Cys Ser
<210> 514
<211> 10
<212> PRT
<213> Conus aulicus
<400> 514
Cys Cys Pro Glu Ile Tyr Trp Cys Cys Ser
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<210> 515
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    <212> PRT
    <213> Conus nobilis
    <400> 515
    Ile Cys Cys Pro Ile Ile Leu Trp Cys Cys
    <210> 516
    <211> 9
    <212> PRT
    <213> Conus ammiralis
    <400> 516
    Cys Cys Pro Pro Val Ile Trp Cys Cys
    <210> 517
    <211> 11
    <212> PRT
    <213> Conus textile
<400> 517
    Cys Cys Gln Thr Phe Tyr Trp Cys Cys Val Gln
€:
    <210> 518
    <211> 13
    <212> PRT
<213> Conus aulicus
    <400> 518
    Trp Asn Asn Tyr Cys Cys Thr Asn Glu Leu Trp Cys Cys
    <210> 519
    <211> 13
    <212> PRT
    <213> Conus gloriamaris
    <400> 519
    Leu Cys Cys Val Thr Glu Asp Trp Cys Cys Glu Trp Trp
                                       10
    <210> 520
    <211> 11
    <212> PRT
    <213> Conus gloriamaris
    <400> 520
    Val Cys Cys Arg Pro Val Gln Asp Cys Cys Ser
    <210> 521
           13
    <211>
          PRT
    <212>
    <213> Conus dalli
    Pro Val Asn Cys Cys Pro Ile Asp Gln Ser Cys Cys Ser
    <210> 522
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<211> 17
<212> PRT
<213> Conus spurius
<400> 522
Gly Asn Ile His Cys Cys Thr Lys Tyr Gln Pro Cys Cys Ser Ser Pro
Ser
<210> 523
<211> 12
<212> PRT
<213> Conus textile
<400> 523
Glx Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
<210> 524
<211> 11
<212> PRT
<213> Conus bandanus
<400> 524
Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
<210> 525
<211> 13
<212> PRT
<213> Conus pennaceus
<400> 525
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
<210> 526
<211> 13
<212> PRT
<213> Conus pennaceus
<400> 526
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Ser
                                    10
<210> 527
<211> 12
<212> PRT
<213> Conus pennaceus
<400> 527
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys
<210> 528
<211> 12
<212> PRT
<213> Conus episcopatus
<400> 528
Ser Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
<210> 529
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<211> 13
<212> PRT
<213> Conus marmoreus
<400> 529
Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu Pro Cys
<210> 530
<211> 12
<212> PRT
<213> Conus pennaceus
<400> 530
Leu Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
<210> 531
<211>
       13
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222> (1)..(13)
<223> Xaa is hydroxy-Pro
<400> 531
Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
<210> 532
<211> 12
<212> PRT
<213> Conus marmoreus
<220>
<221>
      PEPTIDE
<222>
      (1)..(12)
<223> Xaa is hydroxy-Pro
<400> 532
Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
<210> 533
<211> 11
<212> PRT
<213> Conus bandanus
<400> 533
Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
<210> 534
<211>
       12
<211> 12
<212> PRT
<213> Conus aulicus
<400> 534
Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe Pro Cys
<210> 535
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the first part of the second part of the second the sec
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<211> 13
<212> PRT
<213> Conus textile
<400> 535
Asn Gly Val Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
<210> 536
<211> 12
<212> PRT
<213> Conus textile
<400> 536
Glx Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
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<212> PRT
<213> Conus ammiralis
<400> 537
Glx Ala Cys Cys Gly Phe Lys Met Cys Val Pro Cys
<210> 538
<211> 13
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Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
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Asn Gly Val Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
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Asp Val Cys Cys Tyr Val Arg Met Cys Pro Cys Arg
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<213> Conus imperialis
<400> 541
Glx Cys Gly Gln Ala Trp Cys
<210> 542
<211>
<212> PRT
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<213> Conus stercusmuscarum
<220>
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<222> (1)..(8)
<223> Xaa is hydroxy-Pro
<400> 542
Gly Cys Xaa Trp Gln Pro Val Cys
<210> 543
<211> 11
<212> PRT
<213> Conus arenatus
<220>
      PEPTIDE (1)..(11)
<221>
<222>
<223> Xaa is hydroxy-Pro
<400> 543
Glx Tyr Gly Cys Xaa Xaa Gly Leu Trp Cys His
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<400> 544
Ala Ser Gly Cys Pro Trp Arg Pro Trp Cys
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<211> 11
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Glx Tyr Gly Cys Pro Val Gly Leu Trp Cys Asp
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Ser Gly Cys Pro Trp Gln Pro Trp Cys
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Ser Gly Cys Pro Trp His Pro Trp Cys
<210> 548
<211> 30
<212> PRT
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<213> Conus ermineus
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<222> (1)..(30)
<223> Xaa is hydroxy-Pro
<400> 548
Gly Cys Cys Gly Lys Tyr Xaa Asn Ala Ala Cys His Xaa Cys Gly Cys
Thr Val Gly Arg Xaa Xaa Tyr Cys Asp Arg Xaa Ser Gly Gly
                               25
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<211> 25
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<213> Conus purpurascens
<400> 549
Gly Cys Cys Gly Ser Tyr Pro Asn Ala Ala Cys His Pro Cys Gly Cys
Lys Asp Arg Pro Ser Tyr Cys Gly Gln
<210> 550
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<400> 550
Glu Gly Cys Cys Ser Asn Pro Ala Cys His Pro Cys Gly Cys Lys Asp
Arg Pro Ser Tyr Cys Gly Gln
<210> 551
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Val Val Thr Glu Ala Cys Glu Glu Ser Cys Glu Glu Glu Glu Lys His
Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala Val Ile Cys Trp
<210> 552
<211>
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<212> PRT
<213> Conus arenatus
<400> 552
Ile Val Thr Glu Ala Cys Glu Glu Ser Cys Glu Asp Glu Glu Lys His
Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala Val Ile Cys Trp
                                25
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<211> 32
<212> PRT
<213> Conus arenatus
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<400> 553
Ile Val Thr Glu Ala Cys Glu Glu His Cys Glu Asp Glu Glu Gln Phe
Cys Cys Gly Leu Glu Asn Gly Gln Pro Phe Cys Ala Pro Val Cys Phe
                              25
<210> 554
<211>
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     PRT
<212>
<213> Conus arenatus
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Val Val Thr Gly Ala Cys Glu Glu His Cys Glu Asp Glu Glu Lys His
Cys Cys Gly Leu Glu Asn Gly Gln Pro Phe Cys Ala Arg Leu Cys Leu
<210>
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<211>
      32
<212>
     PRT
<213> Conus distans
<400> 555
Asn Val Asp Gln Glu Cys Ile Asp Ala Cys Gln Leu Glu Asp Lys Asn
Cys Cys Gly Arg Thr Asp Gly Glu Pro Arg Cys Ala Lys Ile Cys Leu
<210>
     556
<211>
      32
     PRT
<212>
<213> Conus distans
<400> 556
Glu Thr Asp Gln Glu Cys Ile Asp Ile Cys Lys Gln Glu Asp Lys Lys
Cys Cys Gly Arg Ser Asn Gly Glu Pro Thr Cys Ala Lys Ile Cys Leu
<210>
      557
<211>
      32
<212>
     PRT
<213> Conus distans
<400> 557
Glu Thr Asp Gln Glu Cys Ile Asp Thr Cys Glu Gln Glu Asp Lys Lys
Cys Cys Gly Arg Thr Asn Gly Glu Pro Val Cys Ala Lys Ile Cys Phe
<210> 558
      37
<211>
<212>
      PRT
<213> Conus purpurascens
<400> 558
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<400> 563

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Cys Cys Cys Ile Arg Ser Asp Gly Pro Lys Cys Ser Arg Lys Cys Leu
Leu Ser Ile Phe Cys
        35
<210> 559
<211>
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<212>
      PRT
<213> Conus purpurascens
<400> 559
Val Val Ser Glu Glu Cys Lys Lys Tyr Cys Lys Lys Gln Asn Lys Asn
Cys Cys Ser Ser Lys His Glu Glu Pro Arg Cys Ala Lys Ile Cys Phe
<210>
       560
<211>
       32
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       PRT
<213>
      Conus sponsalis
<400> 560
Ala Val Thr Glu Ala Cys Thr Glu Asp Cys Lys Thr Gln Asp Lys Lys
Cys Cys Gly Glu Met Asn Gly Gln His Thr Cys Ala Lys Ile Cys Leu
                                25
<210>
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<211>
       37
<212>
      PRT
<213> Conus tulipa
<400> 561
Pro Lys Thr Lys Glu Cys Glu Arg Tyr Cys Glu Leu Glu Glu Lys His
Cys Cys-Cys Ile Arg Ser Asn Gly Pro Lys Cys Ser Arg Ile Cys Ile
Phe Lys Phe Trp Cys
        35
<210>
       562
<211>
       36
<212>
      PRT
<213> Conus tulipa
<400> 562
Pro Lys Thr Arg Glu Cys Glu Met Gln Cys Glu Gln Glu Glu Lys His
                                   10
Cys Cys Arg Val Arg Asp Gly Thr Gly Gln Cys Ala Pro Lys Cys Leu
Gly Ile Asn Trp
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<210>
       563
<211>
       9
<212>
       PRT
<213> Conus geographus
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Cys Phe Ile Arg Asn Cys Pro Lys Gly
<210> 564
<211>
<212> PRT
<213> Conus striatus
<400> 564
Cys Ile Ile Arg Asn Cys Pro Arg Gly
<210> 565
<211> 28
<212> PRT
<213> Conus arenatus
<400> 565
Gly Cys Thr Pro Pro Gly Gly Val Cys Gly Tyr His Gly His Cys Cys
Asp Phe Cys Asp Thr Phe Gly Asn Leu Cys Val Ser
<210> 566
<211>
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<212> PRT
<213> Conus geographus
<400> 566
Ala Cys Ser Gly Arg Gly Ser Arg Cys Pro Pro Gln Cys Cys Met Gly
Leu Thr Cys Gly Arg Glu Tyr Pro Pro Arg Cys
<210> 567
<211> 31
<212> PRT
<213> Conus caracteristicus
<400> 567
Asn Cys Gly Glu Gln Gly Glu Gly Cys Ala Thr Arg Pro Cys Cys Ser
Gly Leu Ser Cys Val Gly Ser Arg Pro Gly Gly Leu Cys Gln Tyr
<210>
      568
<211>
      23
      PRT
<212>
<213> Conus textile
<400> 568
Asn Cys Pro Tyr Cys Val Val Tyr Cys Cys Pro Pro Ala Tyr Cys Glu
Ala Ser Gly Cys Arg Pro Pro
            20
<210> 569
<211> 27
<212> PRT
<213> Conus delesstii
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<220>
<221>
      PEPTIDE
<222>
       (1)..(27)
      Xaa at residue 4 is hydroxy-Pro; Xaa at residues 13 and 16 is gam
      m-carboxy-Glu
<400> 569
Ala Cys Lys Xaa Lys Asn Asn Leu Cys Ala Ile Thr Xaa Met Ala Xaa
Cys Cys Ser Gly Phe Cys Leu Ile Tyr Arg Cys
<210>
      570
<211>
      30
<212> PRT
<213> Conus lividus
<400> 570
Ser Cys Gly His Ser Gly Ala Gly Cys Tyr Thr Arg Pro Cys Cys Pro
Gly Leu His Cys Ser Gly Gly Gln Ala Gly Gly Leu Cys Val
<210> 571
<211>
       35
<212>
      PRT
<213> Conus lividus
<400> 571
Asp Cys Gly Glu Ser Gly Gln Gly Cys Tyr Ser Val Arg Pro Cys Cys
Pro Gly Leu Ile Cys Lys Gly Thr Gly Gly Gly Leu Cys Arg Pro
Ser Gly Ile
<210> 572
<211>
      31
<212> PRT
<213> Conus miliaris
<400> 572
Cys Thr Pro Pro Gly Gly Leu Cys Tyr His Ala Tyr Pro Cys Cys Ser
Lys Thr Cys Asn Leu Asp Thr Ser Gln Cys Glu Pro Arg Trp Ser
<210>
      573
<211>
       36
<212> PRT
<213> Conus miles
<400> 573
Cys Thr Asp Asp Ser Gln Phe Cys Asn Pro Ser Asn His Asp Cys Cys
Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile Cys Ala Ile Val
                                25
Pro Glu Asn Ser
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35
<210> 574
<211> 36
<212> PRT
<213> Conus miles
<400> 574
Cys Thr Glu Asp Ser Gln Phe Cys Asn Pro Ser Asn His Asp Cys Cys
Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile Cys Ala Ile Val
                                25
Pro Glu Asn Ser
        35
<210> 575
<211>
      30
<212>
      PRT
<213> Conus pulicarius
<400> 575
Cys Ser Asp Phe Gly Ser Asp Cys Val Pro Ala Thr His Asn Cys Cys
Ser Gly Glu Cys Phe Gly Phe Glu Asp Phe Gly Leu Cys Thr
<210>
      576
<211>
      30
<212>
     PRT
<213> Conus quercinus
<400> 576
Ala Cys Ser Gln Val Gly Glu Ala Cys Phe Pro Gln Lys Pro Cys Cys
Pro Gly Phe Leu Cys Asn His Ile Gly Gly Met Cys His His
<210> 577
<211>
       28
      PRT
<212>
<213> Conus striatus
<400> 577
Cys Leu Pro Asp Gly Thr Ser Cys Leu Phe Ser Arg Ile Arg Cys Cys
Gly Thr Cys Ser Ser Ile Leu Lys Ser Cys Val Ser
<210> 578
<211>
     31
<212> PRT
<213> Conus tessulatus
<400> 578
Ser Cys Ala Glu Phe Gly Glu Val Cys Ser Ser Thr Ala Cys Cys Pro
Asp Leu Asp Cys Val Glu Ala Tyr Ser Pro Ile Cys Leu Trp Glu
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<212>

PRT

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<210> 579
<211>
       27
      PRT
<212>
<213> Conus textile
<400> 579
Lys Cys Val Glu Gln Trp Lys Tyr Cys Thr Arg Glu Ser Leu Cys Cys
Ala Gly Leu Cys Leu Phe Ser Phe Cys Ile Leu
<210>
       580
<211>
       29
<212>
      PRT
<213> Conus textile
<400> 580
Cys Val Glu Gln Trp Glu Val Cys Gly Ile Ile Leu Phe Ser Ser Ser
Cys Cys Gly Gln Leu Cys Leu Phe Gly Phe Cys Val Leu
<210>
       581
<211>
       32
<212>
      PRT
<213>
      Conus virgo
<400> 581
Asp Cys Gly Gly Glu Gly Cys Tyr Thr Gln Pro Cys Cys Pro
Gly Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Gly Val Cys Gln Leu
                                25
<210>
       582
<211> 33
<212>
      PRT
<213> Conus wittigi
<400> 582
Phe Gly Ser Phe Ile Pro Cys Ala Arg Leu Gly Glu Pro Cys Thr Ile
Cys Cys Arg Pro Leu Arg Cys Arg Glu Ser Gly Thr Pro Thr Cys Gln
Val
<210>
       583
       30
<211>
<212>
       PRT
<213> Conus regius
<400> 583
Thr Cys Leu Glu His Asn Lys Leu Cys Trp Tyr Asp Arg Asp Cys Cys
Thr Ile Tyr Cys Asn Glu Asn Lys Cys Gly Val Lys Pro Gln 20 25 30
<210>
       584
<211>
       34
```

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<213> Conus radiatus
<400> 584
Ala Cys Lys Ser Asn Tyr Asp Cys Pro Gln Arg Phe Lys Cys Ser
Tyr Thr Trp Asn Gly Ser Ser Gly Tyr Cys Lys Arg Val Cys Tyr Leu 20 25 30
Tyr Arg
<210> 585
<211> 24
<212> PRT
<213> Conus purpurascens
<220>
     PEPTIDE
<221>
<222>
      (1)..(24)
<223>
     Xaa is hydroxy-Pro
<400> 585
Tyr Asn Ala Leu Cys Cys Arg Lys
<210> 586
<211> 24
<212> PRT
<213> Conus purpurascens
<400> 586
His Pro Pro Cys Cys Met Tyr Gly Arg Cys Arg Arg Tyr Pro Gly Cys
Ser Ser Ala Ser Cys Cys Gln Gly
<210> 587
<211>
      36
<211> 36
<212> PRT
<213> Conus consors
<400> 587
Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr Asp
Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro Pro
Lys Arg Lys Pro
<210> 588
<211>
      39
<212> PRT
<213> Conus aurisiacus
<400> 588
Glx Ser Trp Leu Val Pro Ser Thr Ile Thr Thr Cys Cys Gly Tyr Asp
Pro Gly Thr Met Cys Pro Pro Cys Arg Cys Asn Asn Thr Cys Lys Pro
```

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Lys Lys Pro Lys Pro Gly Lys 35
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<210> 589

<211> 37

<212> PRT

<213> Conus consors

<400> 589

Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr Asp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

25

Pro Met Thr Trp Cys Pro Ser Cys Met Cys Thr Tyr Ser Cys Pro His 20 25 30

Gln Arg Lys Lys Pro 35

<210> 590

<211> 36

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The state of the s

He was them

 <212> PRT

<213> Conus magus

<400> 590

Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys Gly Tyr Asp 1 5 10 15

Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro Pro 20 25 30

Lys Gly Lys Pro 35

<210> 591

<211> 38

<212> PRT

<213> Conus aurisiacus

<400> 591

Glx Lys Trp Leu Val His Ser Lys Ile Thr Tyr Cys Cys Gly Tyr Asn 1 5101515

Lys Met Asp Met Cys Pro Pro Cys Met Cys Thr Tyr Ser Cys Pro Pro 20 25 30

Leu Lys Lys Arg Pro

<210> 592

<211> 29

<212> PRT

<213> Conus aurisiacus

<400> 592

Ala Pro Trp Thr Val Val Thr Ala Thr Thr Asn Cys Cys Gly Ile Thr 1 5 10

Gly Pro Gly Cys Leu Pro Cys Arg Cys Thr Gln Thr Cys 20

<210> 593

<211> 13

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<400> 599
  Glx Asp Tyr Cys Cys Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu
  Arg Cys Arg His Ile Arg
  <210> 600
  <211> 13
<212> PRT
  <213> Conus miles
  <400> 600
  Asp Tyr Cys Cys His Arg Gly Pro Cys Met Val Trp Cys
  <210> 601
  <211> 13
  <212>
         PRT
  <213> Conus jDedius <400> 601
  Gly Cys Cys Ser Asp Pro Arg Cys Arg Tyr Arg Cys Arg
  <210> 602
  <211> 17
<212> PRT
<213> Conus omaria
  <400> 602
  Gly Cys Cys Ser His Pro Ala Cys Asn Val Asn Asn Pro His Ile Cys
Gly
  <210> 603
   <211> 17
  <212> PRT
  <213> Conus omaria
   <400> 603
  Gly Cys Cys Ser His Pro Ala Cys Asn Val Asn Asn Pro His Ile Cys
                                        10
                   5
   Gly
   <210> 604
   <211> 19
   <212> PRT
   <213> Conus quercinus
   Glx Gly Cys Cys Ser Asp Pro Ala Cys Ala Val Ser Asn Pro Asp Ile
   Cys Gly Gly
   <210> 605
   <211> 17
   <212> PRT
   <213> Conus bandanus
   <400> 605
   Pro Glu Cys Cys Thr His Pro Ala Cys His Val Ser His Pro Glu Leu
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15

10

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<210> 606
                  <211> 17
                  <212> PRT
                  <213> Conus marmoreus
                  <400> 606
                  Pro Glu Cys Cys Thr His Pro Ala Cys His Val Ser Asn Pro Glu Leu
                                                                                                                                                               10
                  Cys
                  <210> 607
                  <211> 15
                  <212> PRT
                  <213> Conus miles
                  <400> 607
                  Cys Cys Asn His Pro Ala Cys Ala Gly Lys Asn Ser Asp Leu Cys
The state of the s
                  <210> 608
                  <211> 16
                  <212> PRT
Series .
                  <213> Conus magus
#:
Mary Street
                  <400> 608
                  Gly Cys Cys Tyr His Pro Thr Cys His Leu Glu His Ser Asn Leu Cys
                                                                                 5
<210> 609
                  <211>
                                              17
                   <212>
                                            PRT
                   <213> Conus nobilis
                   <400> 609
                   Gly Cys Cys Glu Arg Pro Pro Cys Arg Trp Gln Asn Pro Asp Leu Cys
                                                                                                                                                                10
                   Gly
                   <210> 610
                   <211> 17
                   <212> PRT
                   <213> Conus atlanticus
                   <400> 610
                   Thr Cys Cys Ser Arg Pro Thr Cys Arg Met Glu Tyr Pro Glu Leu Cys
                                                                                                                                                                10
                   Gly
                   <210> 611
                   <211>
                                              21
                    <212>
                                             PRT
                   <213> Conus quercinus
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Asn Glu Cys Cys Asp Asn Pro Pro Cys Lys Ser Ser Asn Pro Asp Leu

Cys Asp Trp Arg Ser

10

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Cys

20

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A Marie State Stat

33

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<210> 612
<211> 16
<212> PRT
<213> Conus leopardus
<400> 612
Cys Cys Ser Asn Pro Ala Cys Asn Arg Tyr Asn Pro Ala Ile Cys Asp
<210> 613
<211> 17
<212>
      PRT
<213> Conus emaciatus
<400> 613
Asp Cys Cys Asn Phe Pro Ala Cys Ala Ala Ser Asn Pro Gly Leu Cys
                5
Thr
      614
<210>
<211>
       14
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<213> Conus victor
<400> 614
Cys Cys Ser Ser Pro Pro Cys Phe Ala Ser Asn Pro Ala Cys
                 5
<210> 615
<211> 17
<212> PRT
<213> Conus cinereus gubba
<400> 615
Gly Gly Cys Cys Ser Phe Pro Pro Cys Ile Ala Asn Asn Pro Phe Cys
Ala
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 <400> 616
 Gly Cys Cys Ser Asn Pro Pro Cys Ser Tyr Leu Asn Pro Ala Cys
 <210> 617
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 Asp Cys Cys Ser Asp Pro Pro Cys Ala His Asn Asn Pro Asp Cys Arg
                                      10
 <210> 618
 <211> 17
 <212> PRT
 <213> Conus generalis
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  Gly Cys Cys Ser Asn Pro Pro Cys Tyr Ala Asn Asn Gln Ala Tyr Cys
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· Asn
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  <213> Conus wittigi
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  Asp Glu Cys Cys Ala His Pro Ser Cys Trp Lys Ala Glu Asp Leu Ile
  Cys Thr Asn Gln Arg Arg Arg Thr Leu
  <210> 620
  <211> 20
  <212> PRT
  <213> Conus caracteristicus
  <400> 620
  Gly Cys Cys Ala Ile Arg Glu Cys Arg Leu Gln Asn Ala Ala Tyr Cys
  Gly Gly Ile Ser
  <210> 621
<211> 19
<212> PRT
  <213> Conus betulinus
  Ser Ala Thr Cys Cys Tyr Tyr Pro Pro Cys Tyr Glu Ala Tyr Pro Glu
   Ser Cys Leu
   <210> 622
   <211> 6
   <212> PRT
   <213> Conus magus
   <220>
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   <222> (1)..(6)
   <223> Xaa is gamma-carboxy-Glu
   <400> 622
   Val Tyr Xaa Thr His Pro
   <210> 623
   <211> 14
   <212> PRT
   <213> Conus striatus
   <400> 623
   Trp Ser Trp Arg Met Gly Asn Gly Asp Arg Arg Ser Asp Gln
   <210> 624
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<211> 11
<212> PRT
<213> Conus quercinus
<400> 624
Asp Cys Gln Pro Cys Gly His Asn Val Cys Cys
<210> 625
<211> 29
<212> PRT
<213> Conus geographus
<220>
      PEPTIDE
<221>
<222>
      (1)..(29)
<223> Xaa is gamma-carboxy-Glu
<400> 625
Lys Phe Leu Ser Gly Gly Phe Lys Xaa Ile Val Cys His Arg Tyr Cys
Ala Lys Gly Ile Ala Lys Glu Phe Cys Asn Cys Pro Asp
<210> 626
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<212> PRT
<213> Conus magus
<400> 626
Arg Pro Lys Asn Ser Trp
<210> 627
<211> 7
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 <222> (1)..(7)
 <223> Xaa is hydroxy-Pro
 <400> 627
 Ala Arg Xaa Lys Asn Ser Trp
 <210> 628
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 <221> PEPTIDE
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       (1)..(6)
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 <400> 628
 Arg Xaa Lys Asn Ser Trp
 <210> 629
 <211> 71
 <212> PRT
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<213> Conus geographus
<400> 629
Cys Cys Pro Ser Ser Lys Glu Asp Ser Leu Asn Cys Ile Glu Thr Met
Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Glu Ile Tyr Ser
Tyr Ala Cys Gly Tyr Cys Gly Lys Lys Lys Glu Ser Cys Phe Gly Asp 35
Lys Lys Pro Val Thr Asp Tyr Gln Cys Gln Thr Arg Asn Ile Pro Asn 50 55 60
Pro Cys Gly Gly Ala Ala Leu
<210> 630
<211> 65
       PRT
<212>
<213> Conus geographus
<400> 630
Asp Glu Ser Lys Cys Asp Arg Cys Asn Cys Ala Glu Leu Arg Ser Ser 1 10 15
Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr Pro Glu Leu Cys Thr Pro
Ser Ile Ser Cys Pro Thr Gly Glu Cys Arg Cys Thr Lys Phe His Gln
Ser Arg Cys Thr Arg Phe Val Glu Cys Val Pro Asn Lys Cys Arg Asp
 Ala ·
 65
 <210> 631
       60
 <211>
 <212> PRT
 <213> Conus geographus
 <400> 631
 Asp Asp Ser Tyr Cys Asp Gly Cys Leu Cys Thr Ile Leu Lys Lys Glu
 Thr Cys Thr Ser Thr Met Ser Cys Arg Gly Thr Cys Arg Lys Glu Trp
 Pro Cys Trp Glu Glu Asp Cys Tyr Cys Thr Glu Ile Gln Gly Gly Ala
 Cys Val Thr Pro Ser Glu Cys Lys Pro Gly Glu Cys
 <210> 632
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 <213> Conus radiatus
 <400> 632
 Gly Cys Val Tyr Glu Gly Ile Glu Tyr Ser Val Gly Glu Thr Tyr Gln
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200 Ala Asp Cys Asn Thr Cys Arg Cys Asp Gly Phe Asp Leu Ala Thr Cys Thr Val Ala Gly Cys Thr Gly Phe Gly Pro Glu <210> 633 <211> 86 <212> PRT <213> Conus striatus <400> 633 Ser Gly Pro Ala Asp Cys Cys Arg Met Lys Glu Cys Cys Thr Asp Arg Val Asn Glu Cys Leu Gln Arg Tyr Ser Gly Arg Glu Asp Lys Phe Val Ser Phe Cys Tyr Gln Glu Ala Thr Val Thr Cys Gly Ser Phe Asn Glu Ile Val Gly Cys Cys Tyr Gly Tyr Gln Met Cys Met Ile Arg Val Val Lys Pro Asn Ser Leu Ser Gly Ala His Glu Ala Cys Lys Thr Val Ser Cys Gly Asn Pro Cys Ala <210> 634 24 <211> <212> PRT <213> Conus purpurascens <400> 634 Asp Cys Cys Gly Val Lys Leu Glu Met Cys His Pro Cys Leu Cys Asp Asn Ser Cys Lys Asn Tyr Gly Lys <210> 635 <211> 36 <212> PRT <213> Conus geographus <400> 635 Gly Glu Pro Ile Pro Thr Thr Val Ile Asn Tyr Gly Glu Cys Cys Lys Asp Pro Ser Cys Trp Val Lys Val Lys Asp Phe Gln Cys Pro Gly Ala Ser Pro Pro Asn <210> 636 <211> 16 <212> PRT <213> Conus generalis <400> 636 Gln Cys Cys Thr Phe Cys Asn Phe Gly Cys Gln Pro Cys Cys Val Pro

10

Leu Gly Cys Leu

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<210> 637
<211>
      20
<212> PRT
<213> Conus tessulatus
<400> 637
Asp Gly Cys Pro Pro His Pro Val Pro Gly Met His Lys Cys Met Cys
Thr Asn Thr Cys
<210> 638
<211> 84
<212> PRT
<213> Conus radiatus
<400> 638
His Pro Thr Lys Pro Cys Met Tyr Cys Ser Phe Gly Gln Cys Val Gly
Pro His Ile Cys Cys Gly Pro Thr Gly Cys Glu Met Gly Thr Ala Glu 20 25 30
Ala Asn Met Cys Ser Glu Glu Asp Glu Asp Pro Ile Pro Cys Gln Val
Phe Gly Ser Asp Cys Ala Leu Asn Asn Pro Asp Asn Ile His Gly His
Cys Val Ala Asp Gly Ile Cys Cys Val Asp Asp Thr Cys Thr Thr His
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